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ABSTRACT

This booklet provides information about postsecondary educational opportunities and career planning for upper-level high school students in Virginia and their parents. The introductory chapter is a general overview of education after high school: decision making, finances, career exploration, and information seeking. Chapter 2 focuses on postsecondary education programs in Virginia: colleges and universities, community colleges, junior and two-year colleges, vocational and occupational programs, adult continuing education, the general education development (GED) program, and military service. The college sections include information on admission procedures, financial aid, academic planning, and student services. Chapter 3 focuses more specifically on financial aid: how and when to apply, and the range of available grants, loans, and benefits. Chapter 4 lists and describes a wide range of career possibilities by category: artistic, scientific, nature, authority, mechanical, industrial, business detail, persuasive, accommodating, humanitarian, social/business, and physical performing careers. A list of key words is appended, along with planning checklists for junior and senior years in high school. Other Virginia publications in this series are listed. (TE)

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AFTER HIGH SCHOOL

EDUCATIONAL OPPORTUNITIES IN VIRGINIA BOOK 5

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WHY THIS BOOKLET?

You are in the final years of high school. Almost before you know it, you will be completing your high school studies and entering a new and exciting part of your life. It is time for you to think very seriously about what you will do after high school—to make some initial decisions and plans about your future career and the kind of education you will need to enter that career. In addition, there are certain other steps which you must take in the very near future to be ready for your life after high school.



WHO SHOULD USE THIS BOOKLET?

This booklet has been written to help you plan for your future education and career. It is also for your parents because they have a key role in helping you make decisions about your future.



WHAT DOES THIS BOOKLET CONTAIN?

This booklet provides information about:

- Educational programs in Virginia, admissions requirements, how to apply for admission, tuition and other costs, and student life
- Practical matters, such as sources of further information, how to make educational and career decisions, what to do if you have trouble deciding about your future education and career
- Financial assistance programs to help students with the costs of education after high school, how to get the financial help you may need
- Careers and the types of education they require, the employment outlook for career areas
- Continuing education, how to continue your education after you are employed
- Job-seeking, how to apply for a job if you decide to work right after graduating from high school

WHAT IS THE BEST WAY TO USE THIS BOOKLET?

Take the time to read this booklet carefully so that you will know about the many educational and career choices available to you in Virginia. It is important that you also share this booklet with your parents. Ask them to read it and to tell you their ideas and opinions. Discuss with them your thoughts and feelings about your future life.

Use the material in this booklet as a road map to guide you in deciding and carrying out your educational and career decisions. Because this booklet does not contain everything you will want to know about education and careers, you and your parents may have some questions along the way. When you do, your counselor and teachers can help you. Also, throughout this booklet, you will find other suggestions about how and where to get more information.



AFTER HIGH SCHOOL

EDUCATIONAL OPPORTUNITIES IN VIRGINIA BOOK 5

A PUBLICATION OF
VIRGINIA'S SECRETARY OF EDUCATION
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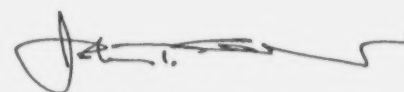
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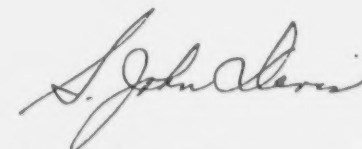
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1984



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1984

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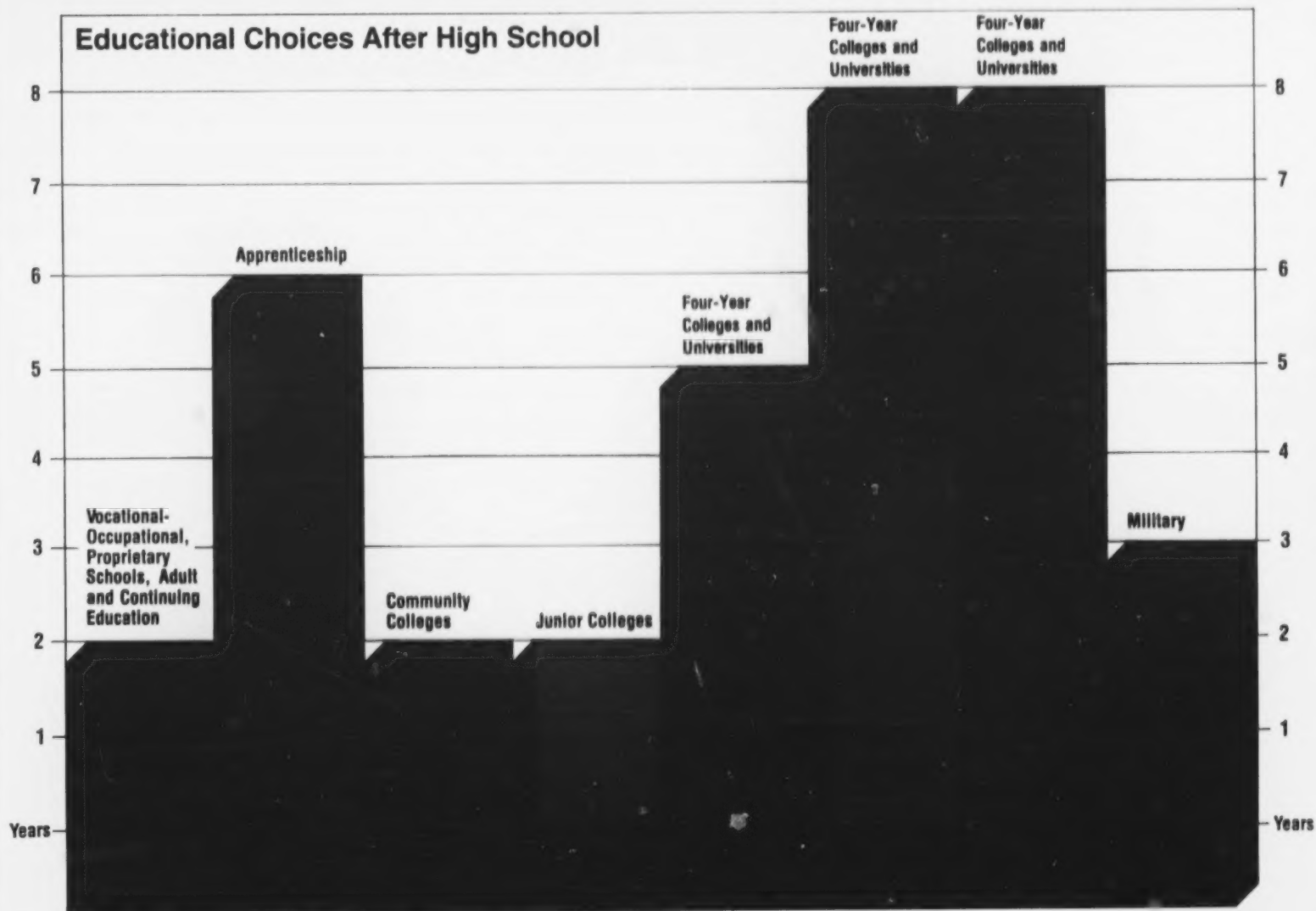
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CHAPTER 1

INTRODUCTION

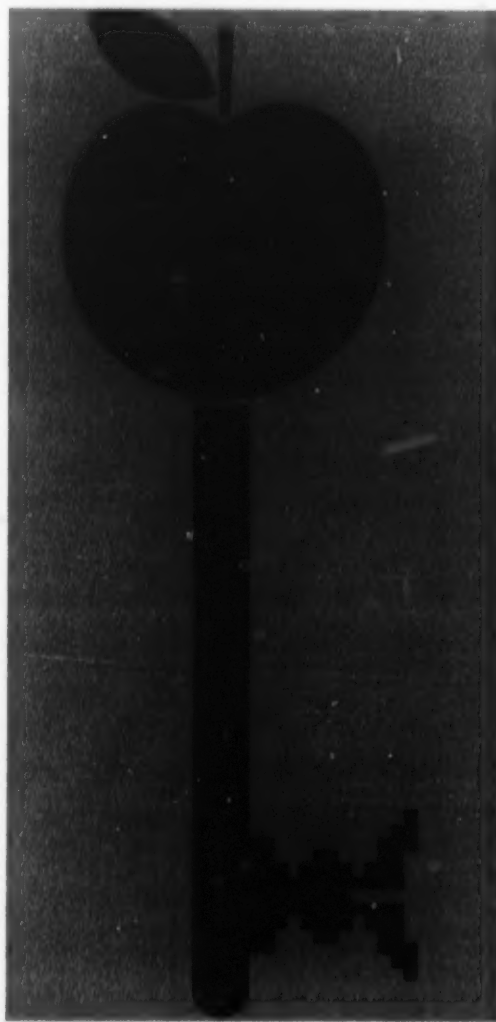
WHY CONSIDER EDUCATION AFTER HIGH SCHOOL?

By this time in their lives, many students already have decided that continuing their education beyond high school will be of great value to them as adults. Others, however, have difficulty in deciding and are not sure that they want or will need further education.

If you are wondering about continuing your education or getting a job instead, here are some questions to help you decide:

1. What kind of life do I hope to have in the future?
2. Do I want to know more about myself and the world in which I will be living?
3. Do I want work which I will be able to do well—work which will give me satisfaction and a salary to support myself?
4. Do I want opportunities to advance in my career?
5. What kinds of jobs are available for workers who have not continued their education after high school? Do these jobs interest me and offer me opportunities for advancement that I want?

Did your answers for the future show that you hope to have a full and happy personal life, with opportunities for interesting work, a good salary, and satisfaction and advancement in your career? If so, think carefully about the fact that continuing your education after high school can help open the doors to the future you desire. You may continue your edu-



cation at colleges, universities, community colleges, vocational schools, apprenticeship programs, proprietary schools, continuing education programs, or through the military services.

WILL YOU BE ABLE TO PAY FOR FURTHER EDUCATION?

Money is available for qualified students who need help with the costs of post-high school education. In one year alone, over 47,000 students in Virginia received scholarship aid which allowed them to get advanced education. A lack of money need not stop you from getting the education you want. (See pages 26 to 29 for information about financial aid.)

A MESSAGE TO PARENTS: HOW CAN PARENTS HELP?

Although your children are growing up and becoming more independent, they still need your help, interest, and encouragement. You have a most important role in helping them to make choices and plans for their future education and careers.

Please read this booklet so that you will know about the educational and career opportunities in Virginia and the financial aid that is available for education after high school. Take time to discuss these with your children. Most important of all, encourage them to continue their education after high school—to take advantage of the educational opportunities open to them. Help them to believe in themselves and their own abilities, and to understand how important their education will be to them as adults.

You can help your children to plan for the future by talking with them and listening to their ideas and feelings about themselves, their education, and possible careers. You can also help them by telling them about your own ideas and experiences related to these areas.

Here are some other suggestions about ways you can aid your children in deciding and planning for their education and careers after they leave high school:

- Ask the school counselor to answer questions you may have about educational programs, entrance requirements, tuition and other costs, financial aid, and admissions and application procedures.
- Attend school and community activities about educational and career opportunities, such as college nights and career fairs.
- Stay in touch with your children's teachers. Know about their progress in school and when your help may be needed.
- Encourage your children to work hard in high school so that their grades will be acceptable for admission to college or other types of educational institutions.



- Be sure that your children take all the high school courses necessary for admission to college and other post-high school institutions. Their counselors can tell you what these courses are.
- Have your children talk with counselors and teachers to get their advice.
- Encourage your children to obtain additional information about post-high school education and careers from catalogues and other materials. Discuss the information from these materials with them. Usually, these sources of information are located in the guidance office and school library, as well as the public library.

- Encourage your children to seek counseling at school for help in making decisions and plans.
- Suggest that your children talk with persons who have attended or are attending the colleges or other educational institutions in which they are interested.
- Suggest that they also talk with persons employed in careers in which they are interested.
- Go with your children on visits to several institutions in which they are interested. Virginia institutions encourage parents and students to visit them.

How can you, as a student, make decisions that are right for you?

You want to make choices that are right for you. In order to make wise decisions, you will need to collect and evaluate as much information as possible about yourself, educational programs, related information, and careers.

Know Yourself First, gather all the facts you can about yourself, your interests, goals, abilities, aptitudes, temperament, likes and dislikes, strengths and shortcomings, values, and even your physical health and capabilities. Although you may already understand many of your characteristics and abilities, there are things you can do to get a clearer picture of yourself.

A good way to learn about yourself is to talk with those who know you best. Your parents and other family members, counselors, teachers, principals, and close friends can provide you with much helpful information about yourself.

Meet with your counselor to review the information in your school record about your accomplishments, grades, courses, and teachers' written comments about you and your work in school. Also, ask the counselor to explain the results of the standardized achievement, aptitude, and ability tests as well as interest inventories you have taken. Your counselor can help you to understand yourself better through such counseling.



Know About Education In addition to knowing about yourself, you will need to know about the many kinds of educational programs which are available to you after high school. In later sections of this booklet, each of the educational programs offered in Virginia and possible career options are described.

Here are some suggestions to help you become better informed about these educational programs:

- Read carefully the information about educational programs in this booklet.
- Discuss the information with your parents.
- Meet with your counselor for additional information and for counseling.
- Read catalogues from colleges and other institutions offering programs which interest you. These materials usually are located in the guidance office, school library, and public library.
- Contact by letter or telephone the admissions offices of colleges and other institutions if you need more information.
- Use computer programs at your school, such as the Virginia Vital Information for Educa-

tion and Work (VIEW) System, in your search for information.

- Talk with your teachers and principals about educational programs of interest to you.
- Talk with others who have attended or are attending colleges or institutions in which you are interested.
- Attend, with your parents, college nights or programs in your school or community. When college admissions personnel come to your school, talk with them. Ask questions to get information to help you.
- If possible, visit, with your parents, those colleges or institutions that are of greatest interest to you. You may arrange in advance with admissions personnel to have an interview at each of the institutions which you visit. See your counselor for more details about visits and interviews.

Know About Related Information There are other kinds of information which you will need to know in deciding about your continued education, such as:

- High school courses you must take for graduation and for admission to post-high school educational programs. Look at these course requirements carefully so that you may be certain to take all the required high school courses before you are graduated.
- Tests which may be required for admissions. Find out if the colleges or institutions of interest to you require admission tests such as the Scholastic Aptitude Test (SAT), the College Board Achievement Tests (ACH), and the American College Testing (ACT) Program. If so, find out how, when, and where

the tests are given and what you must do to be eligible to take them.

- Application and admissions procedures. Learn about how and when to apply, application fees, and facts about admissions to institutions you might consider attending.
- Expenses. Look for information about tuition and costs for books, housing, meals, and other items.
- Student life. Look for information about housing, meals, student activities, and student services, such as counseling, health services, and career planning and placement services.
- Financial aid. Find out about financial aid programs, eligibility requirements, and how to apply for financial assistance, if you need it, to continue your education after high school.

Look for these kinds of information as you read this booklet. Talk with other people, and use materials such as catalogues and computer information systems about post-high school education.

Know About Careers Knowing about careers and the education required for them is necessary to help you decide about your education after high school. As a high school student, you may not be ready to make a final career choice at this time. Nevertheless, you must have information about careers of interest to you. This information will help you select the post-high school program which will prepare you for entry into career areas for which you are best suited. In considering careers, bear in mind the information you have gath-

ered about yourself—your goals, abilities, interests, characteristics, and values.

Here are some ways to collect information about careers:

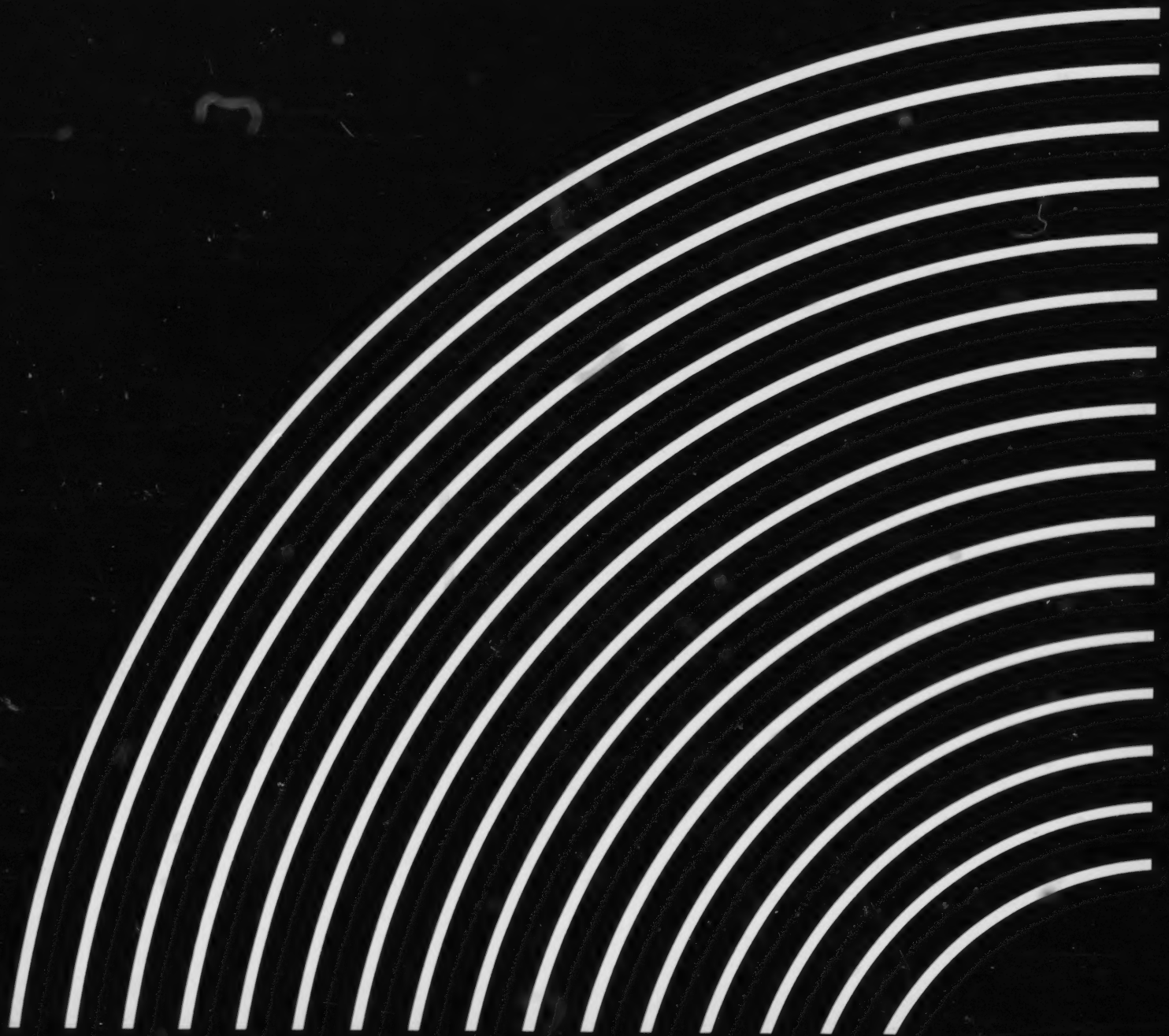
- Read carefully the part of this booklet about careers. In it, major career areas are described and information is provided about the kinds of education required for many occupations.
- Read other career information materials. These may be found in the guidance office, library, and career resource center at your school, and at the public library.
- Talk with your parents, counselor, teachers, principals, and other adults about careers which seem attractive to you.
- Use the career search computer programs, such as the Virginia VIEW, in your high school.
- Talk with workers in career fields in which you are interested. Ask them about their work, skills, interests, life style, job satisfaction, opportunities for employment and advancement, and their educational backgrounds.
- Visit businesses, offices, plants, and other places where people work in the kinds of careers in which you are interested. Learn about the work in entry-level jobs and in higher positions. Ask about education requirements, salaries, opportunities for employment and advancement, employee training programs, employment trends, and the life style of workers in those career fields.
- Attend career fairs in your school or community. Ask questions to get ideas and information to help you.

How CAN YOU USE INFORMATION FOR MAKING DECISIONS?

In making your educational decisions, try to use all the information you have about yourself and about educational programs, related information, and careers. Keeping that information in mind:

- List the educational programs which seem most suitable to your personal goals, qualities, and career interests.
- Think of the possible effects of each program on your future life and career. Eliminate those programs which seem least likely to produce the effects you want.
- Consider each of the remaining educational programs in terms of yourself and your goals for the future.
- Rank these programs from the highest to lowest, according to the desirability of each.
- Look at the several highest-ranked educational programs on your list. Does the highest-ranked program seem much more desirable to you than those ranked below it? If so, you have reached a decision about your educational future.
- If you see few differences among the highest-ranked options, talk with your counselor and parents so that they may help you go through the decision-making steps again.

Remember that you will have opportunities later to make changes in your educational plans if you need to do so.



CHAPTER 2

EDUCATIONAL PROGRAMS



COLLEGES AND UNIVERSITIES

There are 15 public four-year colleges and universities in Virginia as well as 31 private four-year colleges and universities.



Entrance Requirements Requirements for admission to these colleges and universities vary. There are, however, some admission requirements which are true of all these institutions.

- *High School Courses* taken by applicants receive particular attention in the admissions process. Students who take and do well in the more difficult courses in high school are more likely to be accepted by colleges and universities than those who do not. It is recommended, therefore, that you take as many academic courses as possible which will prepare you for college should you decide to attend. Most colleges and universities prefer students who have good preparation in English, mathematics, laboratory science, social studies, foreign languages, health and physical education, as well as elective courses. Be sure to talk with your school counselor and read the catalogues of institutions of interest to you to get information about their course requirements for admission.
- *Grades* which you have earned in high school are also important factors in admission to colleges and universities. Many colleges and universities use the Grade Point Average (GPA) to evaluate scholastic performance in high school. The GPA is the average of all the grades you have earned in high school, based upon the following numerical scale: A = 4, B = 3, C = 2, D = 1, F = 0.
- *Class Rank* is often considered by colleges and universities in the admissions process. Your class rank shows the standing you have in your graduating class. It is based on



a comparison of all the grades you have earned with those earned by every other student. For example, your class rank might be 40th in a graduating class of 400.

- *College Admissions Tests* are required by all four-year colleges and universities in Virginia. For some colleges, the Scholastic Aptitude Test (SAT) is required. Others accept either the SAT or the American College Testing Program (ACT). Still others require students to take both the SAT and the Achievement Tests (ACH) of the College Entrance Examination Board. The SAT and the ACT are used to predict how well you may do in college. The ACH measure a student's level of understanding in particular subjects and are given in 13 subject areas. You need to take those tests required by the colleges or universities to which you are

applying. See the catalogues of those institutions for more information.

- *Extracurricular And Community Activities* in which you participated during high school are considered by many institutions in arriving at admissions decisions. Among those taken into account are activities such as interest clubs, school organizations, sports, volunteer work, and part-time employment.
- *Recommendations from Counselors and Teachers* are very important factors in admissions decisions. These recommendations provide information about your character and ability to do college work.

How To Apply All four-year colleges and universities require an application for admission, payment of an application fee, and official transcripts of your high school grades. Some

institutions also like to have personal interviews with students who have applied for admission. Check the catalogues of institutions in which you are interested for information about how to apply. Also, talk with your counselor and write or call the admissions offices of the colleges or universities that you are considering. It is usually advisable to apply to approximately three colleges or universities which offer programs in which you are interested. By doing this, you increase your chances of being accepted.

When To Apply Generally, you should apply for admission in the fall of your senior year in high school. If you are already a high school graduate, you should apply for admission at least one semester prior to the time you plan to enroll.

Early Admissions Some colleges and universities admit students with exceptional ability after they have completed their junior year in high school. These students are enrolled full-time in colleges or universities. Some institutions also will accept outstanding high school students for part-time study during their senior year in high school.

Advanced Placement You can become eligible for advanced placement, college credit, or both, while you are still a high school student. This is made possible through the Advanced Placement program (AP). The AP program permits qualified high school students to take special examinations administered through a service of the College Board. Advanced Placement examinations are given



in almost all subject areas. By passing AP exams in particular subjects, you do not have to take beginning college courses in those subjects. Sometimes, college credits are given for those courses which you are not required to take because of having passed AP exams.

Admissions Procedures Many institutions operate under a *rolling admissions plan*. This means that a decision is made about each application when it is received. It is best to apply in the fall at institutions which use a rolling admissions plan. Institutions using this plan notify each applicant as soon as a decision is made. The decision can be to admit, to admit conditionally, or not to admit a student. A conditional admission means that the student has not yet met all the admissions requirements. However, the student is considered qualified enough that the institution is willing to permit enrollment if the student completes certain conditions. Examples of such conditions are: successful completion of the senior year in high school; admission with the understanding that the student enrolls in special remedial courses at that institution; or enrollment in fewer courses during the first semester. Some students are put on a waiting list and are accepted during the summer if spaces become available.

Other colleges notify all applicants at a single time of the year about their decision to admit or not to admit students. This usually is done by mail in the spring of the year. Under both this and the rolling admissions plan, if you are accepted, you will be given a certain period of time in which to accept the offer. After this period, the offer will no longer be in effect.

There is one other type of admission plan. It is called *early decision*. This plan is for students who are sure of the college or university they want to attend, and feel they are likely to be accepted by that institution. If you select this plan, you inform the college or university on your application that it is the only one to which you are applying and that, if offered admission, you will enroll in that institution. If you use this plan, you will be notified of the admissions decision earlier than usual, generally by December 15 of your senior year in high school.

Regardless of the admission plan under which you apply, you will be informed by mail about the admission decision. If you are accepted, you will also receive information about what you need to do to enroll for classes; how and when to pay tuition and obtain housing; and other information which you will need to know.

If you are not accepted by any of the colleges or universities to which you have applied, see your counselor for assistance.

What To Expect When You Arrive On Campus College or university life is very different from that in high school. To help you become acquainted with college life, colleges and universities provide orientation programs for new students. These programs help you learn about the school and meet some of the other students who also are enrolling for the first time. During some orientation programs, students are given the chance to take special tests for placement into various courses. At some schools first year students (freshmen) and transfer students, as well as their parents,

are invited to the campus for orientation in the summer before they are to enroll in the fall. Other colleges and universities have their orientation programs when students first arrive in the fall.

Going away to school may be the first time that you have ever been away from home for more than a short period of time. Therefore, you may find it difficult at first to be away from your family, friends, and familiar surroundings. College and university officials are aware of this problem and provide activities to help you meet others after you arrive. They also offer counseling services to help with any problems you may have in becoming a college student. All institutions will try to make you feel welcome.

Major Fields of Study Twenty-three major fields of study are offered by the colleges and universities in Virginia. Not all colleges and universities offer all of them. Generally, however, the larger the institution, the more of the 23 fields of study they offer. You need to decide upon the field or fields of study you would like to enter and find out which colleges or universities offer them.

For more information about these fields of study, see your counselor and refer to Additional Sources of Information, page 14.

Course Credits For each course in which you enroll at a two- or four-year college, you will be given credits when you have successfully completed the course. Course credits are usually based on the number of hours you are required to spend in a class each week, plus



any additional hours you are required to spend in laboratory work. Most four-year colleges and universities have a two-semester academic year, fall and spring, and offer semester hour credits for courses. Some, however, have three quarters in their academic year, rather than two semesters, and award quarter hour credits for courses. You spend about the same amount of time in class in both systems.

Length of Programs and Types of Degrees
Most major fields of study in four-year colleges or universities take four years to complete. A

few programs, such as engineering, architecture, and pharmacy, may require five years for completion. For these four and five year programs, you will be awarded either a Bachelor of Arts or Bachelor of Science Degree.

Costs One of the most important things to consider when planning to go to college is the cost. Costs for tuition and housing at public and private colleges and universities vary widely. Generally, public colleges and universities cost less to attend than those which are private.



College expenses include more than tuition and housing. Books, food, transportation to and from school to your home, clothing, and recreation and leisure time activities also are items you must consider as part of the costs of attending college. Most colleges and universities have guidelines to help you know about the expenses in attending their institution for a year. While there are many expenses in attending college, these should not prevent you from applying. Financial aid is available for qualified students who need it. See Financial Aid, page 26, in this booklet to learn about financial assistance and how to apply for it.

Student Life The college or university you choose will take the place of much of your present home and community life. Therefore, these schools provide the following services and activities:

Housing and Meals As a college student, you will probably live in a dormitory and share a room with one or more roommates. You also will eat your meals in a large dining area with many other students.

Student Activities There are student activities to meet student interests, such as music, the arts, ethnic, political, and religious organizations, student government, intramural sports, fraternities, and sororities.

Intercollegiate Sports These provide opportunities for male and female student athletes to compete against athletes from other colleges or universities in basketball, football, track, fencing, wrestling, lacrosse, and other sports.

Academic Advising and Curriculum Planning A college faculty member or an advisor will help you to choose your courses and plan your program of studies.

Counseling Counseling services are provided for any students who have personal or academic problems and want help in solving them.

Health Services There are health services available for students with physical or mental health problems.

Career Planning and Placement Most colleges have specially trained staff to help you plan for your career and apply for jobs.

Programs/Services for Handicapped Students Under federal law all colleges and universities receiving federal funds may not discriminate against handicapped persons. They must provide the facilities, programs, instruction, and evaluation procedures needed by handicapped students. This means that, if you have a handicap and are admitted to a college or university, you must be given special services to aid you in your learning. Also, any physical barriers which may prevent you from participating in your program of studies must be removed. For more information, contact the admissions office at the college or university to which you are applying, and speak with your counselor.

Reserve Officer Training Corps (ROTC) Twelve colleges and universities in Virginia offer ROTC programs for male and female students. Eight other colleges have agreements that allow their students to enroll in one





of these 12 institutions for ROTC training. You may get training and a commission as a military officer in either the Air Force, Army, Marine Corps, or Navy through programs designed to meet the special needs of each service. During your first two years in an ROTC program, you have no service commitment. Also, you may leave the program after any semester during this period.

Each service offers a two- and four-year program. Students who participate in the four-year program receive \$100 per month, 10 months per year during the last two years of the program, and are required to accept a commission if one is offered upon graduation.

There also are scholarships available to outstanding ROTC cadets. If you are interested in a ROTC program or want information about ROTC scholarships, contact the colleges or universities to which you are applying.

Movement to Graduate Programs After you have received your bachelor's degree, you may decide that you want further education. If so, you may enter a graduate program at a college or university. Many graduate programs are offered in Virginia. These include dentistry, education, engineering, law, nursing, pharmacy, theology, and veterinary medicine, to name a few.

You may choose a graduate program that provides advanced training in your undergraduate major field. However, you may want to enter a graduate program to study in a different field. An example of a graduate program in which you can continue your education in the same undergraduate major field of study is electrical engineering. You can earn a bachelor's degree in electrical engineering and then enroll in a graduate electrical engineering program to earn a master's degree. An exam-

ple of a graduate program in a different field is dentistry. You can earn a bachelor's degree in a program such as biology and enroll in a graduate program in dentistry for which you will earn a degree in dental surgery.

Additional Sources of Information

Barron's Profiles of American Colleges, Vol. 1
Barron's Educational Services, Inc.
1113 Crossways Park Drive
Woodbury, New York 11797

College Handbook
College Board Publication Orders
Box 2815
Princeton, New Jersey 08541

*Directory of Virginia's Postsecondary
Education and Training Opportunities*
The State Council of Higher Education for
Virginia

101 North 14th Street
Richmond, Virginia 23212

Educational Testing Service
Princeton, New Jersey 08541

National Scholarship Service for Negro
Students
1776 Broadway
New York, New York 10019

*Peterson's Annual Guide to Undergraduate
Study*

Peterson's Guides
P.O. Box 2123
Princeton, New Jersey 08540

The American College Testing Program
P.O. Box 168
Iowa City, Iowa 52240

COMMUNITY COLLEGES

The Virginia Community College System (VCCS) has 23 commuter community colleges with 33 campuses located throughout Virginia. The VCCS provides vocational-technical education in the community after high school. It also offers programs for transfer education as well as courses to help you understand yourself and society.

Entrance Requirements You are eligible to apply for admission to a community college if you have a high school diploma or the equivalent, or are 18 years of age, and, after counseling provided by the college, appear able to benefit from a program. You may be admitted as a curricular student or a non-curricular student. The Community College can refuse admission to applicants under certain conditions. High school students can take courses in the

community colleges if they have outstanding academic achievement and the permission of their principals.

Some community colleges require placement testing of curricular students as part of their admissions procedures. The admissions requirements vary according to whether you are applying for admission as a curricular student or as one of the 10 different student categories under the non-curricular student classification. Students are classified in one of the following admissions categories:

- Curricular Student—those who have a high school diploma, a GED, or its equivalent, or are otherwise determined to be qualified for admission.
- Non-curricular Student—those who are not formally admitted to one of the regular curricula or developmental studies, but who may be classified in one of the following areas:
 - Upgrading Employment Skills for Present Job
 - Developing Skills for a New Job
 - Career Exploration
 - Personal Satisfaction and General Knowledge
 - Transient Student
 - Non-Degree Transfer Student
 - High School Student
 - General or Curricular Requirements Pending
 - Restricted Enrollment
 - Auditing a Course

Your school counselor can tell you more about the entrance requirements for community colleges.



How To Apply If you apply for admission either as a curricular or non-curricular student, you must complete an application for admission. No application fee is required. If you want to become a curricular student, you must also send official transcripts from the high schools, colleges, or universities you have attended. In certain cases, exceptions may be made to these requirements. Contact the community college of interest to you or meet with your counselor for further information about applications and admissions procedures.



When To Apply You can apply for admission at any time before the start of the program or course of interest to you. Usually, students are notified by mail about the admission decision around three weeks after the completed application and any required information, such as transcripts, have been received.

Additional Information About Admissions If you are accepted as a curricular student, you must meet with a college counselor to discuss your educational interests and needs and

make plans to enter a particular curriculum at the college. There are certain academic requirements for entering each curriculum, in addition to those requirements for admission to the college. If you do not already meet the requirements for the curriculum you want, you may become eligible to enter it by taking a developmental studies program. You can find out about the requirements for the different curricula in the catalogues of the community colleges and from their admission offices.

You may not have to take all the required courses in your college program if the college decides that you do not need all of them. This decision is made through interviews with a college counselor and by testing. Advanced credit is also available at most of the community colleges to students who get good scores on the College Level Examination Program (CLEP).

Major Fields of Study Programs in the VCCS are organized into clusters. Three clusters make up *Transfer Education*. This program allows you to transfer to a four-year college or university if you want more education beyond the community college. An associate degree is given upon completion of each of these clusters: Associate in Arts (AA), Associate in Science (AS), Associate in Arts and Science (AA&S).

Occupational/Technical Education is made up of six clusters. An Associate in Applied Science (AAS) degree is awarded for completion of each cluster. However, you probably will not be able to transfer these credits to a four-year college or university.



Degrees, Certificates, and Diplomas Students who complete programs in the VCCS receive an associate degree, a diploma, or a certificate. Each of these has different requirements. See your counselor or contact your local community college for more information.

Costs The cost of attending a community college is generally much less than it is for attending a public or private four-year college or university. The tuition for courses is the same at all community colleges in Virginia and is based on a cost-per-quarter hour. Other expenses include books and, at some community colleges, small fees for admissions testing, parking permits, and student activities.

Housing Because of the geographical locations of the community colleges, most students are able to commute to these classes. Therefore, no college housing is provided.

Student Support Services Community colleges offer many services to help students. Some of these services are:

Counseling Many counseling services are offered. Also, some community colleges have special services for students who need help to become successful students.

Academic Advising and Curriculum Planning This service is generally provided by counselors or faculty members to help you choose courses and plan your program of studies.

Career Planning and Placement This service provides you with career counseling and job search assistance. It helps you to learn about opportunities for your future employment after graduation and assists you to get part-time or full-time employment while attending college and during vacations.

Student Life There are many organizations, groups, and activities that you can join and participate in as a community college student. Each community college has a program of health, physical education, and recreation, including sports. More information about student activities may be obtained from the Coordinator of Student Activities at the college in which you are interested.

Orientation The community colleges have orientation sessions for all new students. These sessions help you get acquainted with life at the college. Orientation courses also are offered to help students learn about themselves and community college life.

Programs/Services for Handicapped Students Under the Rehabilitation Act of 1973, all community colleges in Virginia must provide the

facilities, programs, instruction, and procedures for the evaluation of handicapped students. If you have a handicap and are admitted to a community college, special services must be furnished to aid you in learning. Physical access to the college buildings also must be provided. Contact the Dean of Student Services at the college if you need special services.

Reserve Officer Training Corps (ROTC) ROTC is available at only five of the community colleges. Men and women students can get training and a commission as a military officer in either the Army or Air Force through these programs. If you are interested in a ROTC program, contact the community college to which you plan to apply. (See ROTC under Colleges and Universities for more information, page 13.)

Movement From Community Colleges to Four-Year Institutions Counseling is offered to community college students who plan to transfer to four-year institutions. It is important for you to understand that successful completion of a two-year associate degree does not guarantee acceptance at a four-year institution. Therefore, contact the four-year college or university to which you want to transfer so that you may plan your community college program to meet their specific entrance requirements. It is also helpful to contact the academic department in which you are interested at those institutions to learn about any special requirements it may have for community college transfer students.

JUNIOR AND TWO-YEAR COLLEGES

There are two private junior colleges and one public two-year college in Virginia. An associate degree is given upon completion of their programs.

Usually, the application procedures, admissions requirements, fields of study, student evaluation, and student life are quite similar to those at a four-year college or university. Please read the section, Colleges and Universities, of this booklet for more information about these topics. For information about junior colleges or the two-year college in Virginia, write to the admissions office at the institutions to which you are interested in applying.



Additional Sources of Information
Barron's Guide to Two-Year Colleges
Barron's Educational Series, Inc.
113 Crossways Park Drive
Woodbury, New York 11797

*Educational Programs and Student Services
Handbook*
Virginia Community College System
101 North 14th Street
Richmond, Virginia 23212

VOCATIONAL- OCCUPATIONAL PROGRAMS

Many different vocational-occupational programs are offered in Virginia. They are provided mainly through apprenticeship programs, proprietary schools, and the Virginia Community College System (VCCS). You should talk with your counselor about each of

these programs to decide which will be best for you. The following sections of this booklet have information about vocational-occupational programs.

Apprenticeship Programs

An apprenticeship program provides training for a skilled trade. The student apprentice receives supervised on-the-job experience, along with instruction. There are approxi-

mately 38 apprenticeship programs in 84 trades in Virginia. Most apprenticeship programs require a four-year training period. However, the length of the program can vary from one to six years, depending upon the trade. During this time, you will work at your trade and probably also will attend classes for about four hours each week. In these classes, you will study mathematics, trade theory, applied science, and other subjects needed for your trade.





As an apprentice, you will work the same work day and work week as those of the qualified tradesmen. You also will be paid a wage while learning. Usually, you will receive wage increases at certain times during your training. After you complete your apprenticeship program and are employed, you will receive the wage generally paid a beginning trained worker in that trade.

The chart on page 19 lists some of the types of apprenticeship programs now offered in Virginia.

General Qualifications for Admission to Apprenticeship Programs Requirements for admission to apprenticeship programs vary. Generally, to qualify for an apprenticeship, you must be between 16 and 25 years of age. Many programs prefer students who have a high school diploma or a General Education Development certificate (GED). You also may be required to pass a physical examination to qualify for the program. Talk with your counselor and vocational educational teachers for additional information.

Where to Apply Application for an apprenticeship may be made to an employer directly, to the local labor union in the trade you choose, to a local joint apprenticeship committee, or to a local office of the Division of Apprenticeship Training of the Virginia Department of Labor and Industry.

Applications You will need to complete an Apprentice Application Form and may be asked to furnish a transcript of your high school course work. You also may be required to take aptitude tests and to have one or more interviews.

Costs Most of the costs to you in an apprenticeship program will be for tools and equipment to practice your trade. However, the wages you will receive while learning will help to pay for some of this expense.

Movement to Further Education Your formal education need not end when you finish your apprenticeship program. You may choose to continue your education at a two- or four-year college, at a proprietary school, or in an adult or continuing education program. For more information, contact the admission office at the institution of interest to you.

Additional Sources of Information Information about apprenticeship programs in Virginia may be obtained by writing to:

Virginia Apprenticeships
Division of Apprenticeship Training
Virginia Department of Labor and Industry
Richmond, Virginia 23219

Proprietary Schools

A proprietary school is a privately owned, profit-seeking school that offers training in one or more occupations. There are approximately 100 proprietary schools in Virginia. They offer training in 25 different occupations, including computer/data processing, modeling, secretarial and business education, and allied health careers. Proprietary schools in Virginia which offer occupational training must be approved by the state.

Enterance Requirements, Applications, and Admissions Procedures Generally, a high school diploma or a GED certificate is required for admission to a proprietary school. Because requirements differ with each school, you should contact the school in which you are interested for more exact information. It is helpful to visit the schools to which you might apply. While there, you can see what the schools are like and learn more about their programs and teachers. Also, you should ask for the names and addresses of some employers who have hired their graduates. Talk with these employers and get their opinions of the education graduates have received at these schools.

How and When Notified Because classes may start at many different times throughout the year, your application will be reviewed as it is received. You will be notified by mail about the admission decision. If you are accepted, you will receive information to help you get started in your program.



Length of Programs Most proprietary schools operate on a quarter system. While the length of programs varies from two weeks to two years, most programs take about six months to complete.

Costs and Fees The costs and fees vary widely from school to school. Information about expenses should be obtained directly from the proprietary schools.

Certificate Graduates of proprietary schools usually receive a certificate upon completion of their programs.

What to Expect When You Begin Your Program You will probably meet with a counselor who will help you plan your program. Many schools also give placement tests at this time to help decide the courses which you should take.

Orientation Some proprietary schools have orientation programs to help you get acquainted with the school. Others provide little in the way of orientation.

Student Life Unlike four-year colleges, universities, and community colleges, there are few student life activities at proprietary schools.

Movement to Further Education/Training Upon completion of your program, you may choose to continue your education at a two- or four-year college or through an adult or continuing education program. See the appropriate sections of this booklet about those institutions and programs.

Additional Sources of Information Information about proprietary schools in Virginia may be obtained by writing for:

Proprietary School Directory
Proprietary School Supervisor
Virginia Department of Education
P. O. Box 6Q
Richmond, Virginia 23216.

ADULT AND CONTINUING EDUCATION

Adult and continuing education refers to many kinds of educational programs and courses for adult learners. These programs and courses are provided by a variety of institutions, organizations, and agencies. Some people enroll in these programs to learn new job skills. Others take courses because they want to increase their knowledge or because they enjoy learning. The information in the following sections is about adult and continuing education. You will, however, need to find out about the programs and courses available to you in your community. Talk with your counselor or contact the additional sources of information listed on this page.

Location of Adult and Continuing Education Programs and Courses Adult and continuing education programs and courses are available in many educational institutions in Virginia. They usually are offered by colleges, universities, and school divisions. Often, community agencies such as the YMCA and YWCA, senior citizen centers, and churches also offer adult and continuing education programs and courses.

Admissions Requirements Each adult education program or course has its own admissions requirements. In many cases, however, you need only to register and pay a fee to be admitted.

Costs Costs vary widely among programs

and courses. They range from less than \$15 to as much as several hundred dollars.

Types of Programs and Courses The kinds of adult and continuing education programs and courses offered are generally determined by several factors. These factors are the interests of adults, the availability of people to teach the courses, and the job skills needed in the community. As a result, a wide range of courses such as bricklaying, flower arranging, computer programming, licensed practical nursing, retailing, or accounting usually are available.

Length of Programs and Courses While some adult and continuing education courses are as short as three hours, there are adult education programs which last as long as two years. Courses are generally held at times to suit adults who want to enroll. Therefore, many programs and courses are taught in the evening and on weekends.

Credits Adult and continuing education programs and courses can be offered on a credit or noncredit basis. Credits earned usu-

ally can be applied to a certificate, diploma, or a degree.

Home Study/Correspondence Schools Adult and continuing education also is provided through home study or correspondence programs. Many adults find that these programs are a convenient way to get additional education. Since each of these programs differs in content, costs, and admission requirements, ask for specific information from the schools in which you are interested in applying.

On-the-Job Training Many employers provide training for employees who are working on the job. This training permits the worker to gain additional knowledge and skills necessary to perform the job, while still earning a salary. Some employers also require workers to take courses off the job in areas such as management, report writing, or a job skill not taught on the job. For more information about on-the-job training, talk with your counselor and contact employers where you may be interested in applying for employment.

Additional Sources of Information
Superintendent's Office of your local school division
National Home Study Council
1601 18th Street, N.W.
Washington, D.C. 20009
Director of Adult and Continuing Education
Virginia Department of Education
P.O. Box 6Q
Richmond, Virginia 23216



THE GENERAL EDUCATION DEVELOPMENT (GED) PROGRAM

The GED Program is for adults who have not earned a high school diploma. It consists of five tests on writing skills, social studies, natural sciences, reading, and mathematics. These tests are used to measure the knowledge a person acquires during four years in high school. Approximately six hours are required to complete all the tests.

Benefits of Taking the GED Tests By passing all the GED tests, you may earn a General Education Development Certificate, which is considered equal to a high school diploma. This certificate can qualify you for admission to college or other advanced educational programs, or for employment. It also is used to meet the educational requirements for entry into the military services.

Eligibility to Take the GED Tests You must be at least 18 years of age, a resident of Virginia for at least 30 days, and no longer enrolled in regular day school programs to be eligible to take the tests. If you are younger than 18, you may qualify to take the test under special circumstances.

Application and Fees for Taking the GED Tests You must complete the application form at a location designated by the superintendent of your local school division. In addition, you are required to pay a fee of \$10 to



take the battery of five tests, or \$2 for each individual test.

Testing Centers The tests are administered at a number of Official Testing Centers throughout Virginia. You may apply to take the tests at a center of your choice.

Additional Sources of Information

Superintendent's Office of your local school division

Division of Administrative Services and Adult and Continuing Education
Virginia Department of Education
P.O. Box 6Q
Richmond, Virginia 23216

MILITARY SERVICE

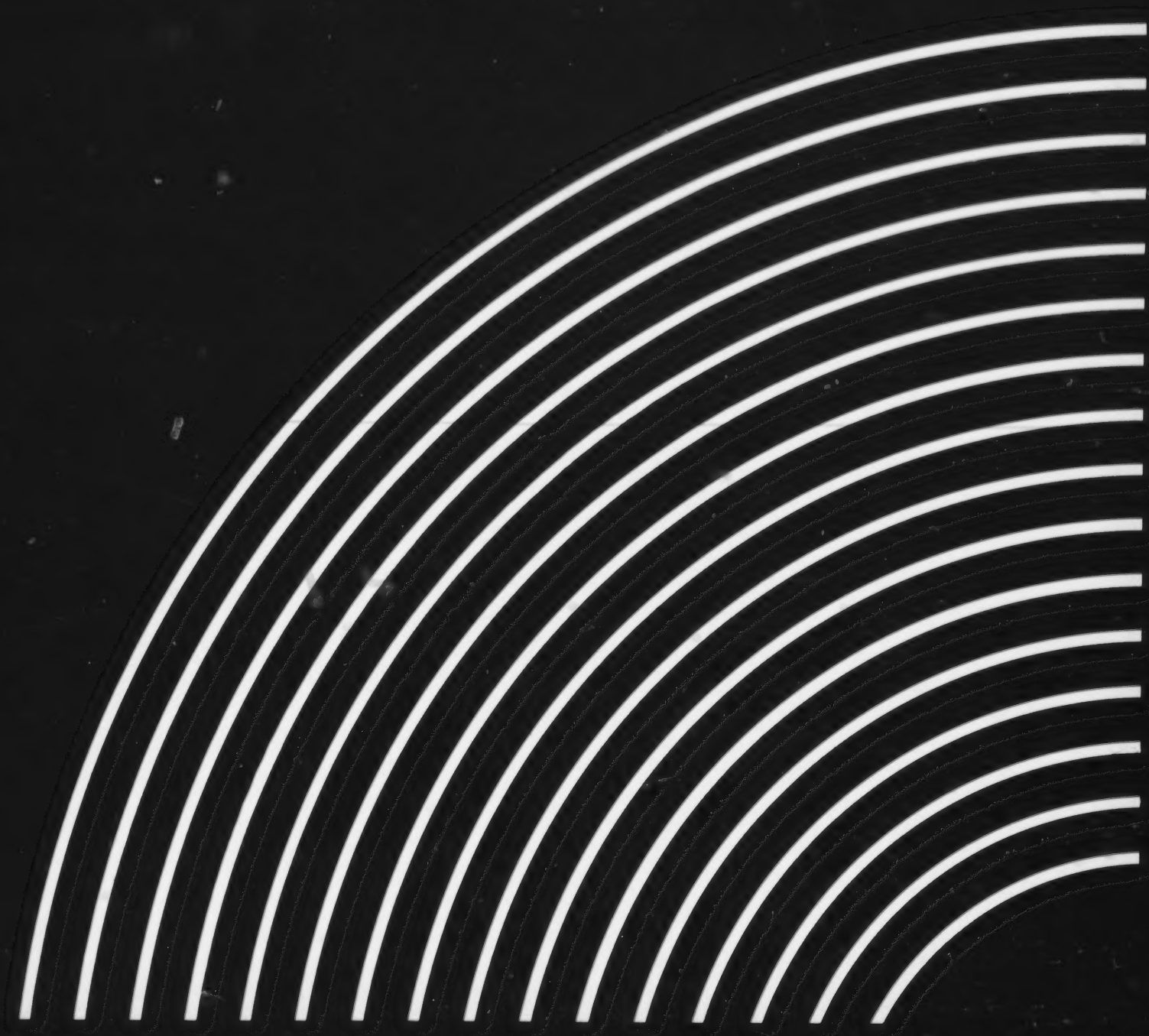
You may consider joining one of the branches of the military—the Air Force, Army, Coast Guard, Marine Corps, or Navy to obtain educational and career training and experience. You also may decide to choose military service as a lifelong career. In either case, you will need to look carefully at the options offered by each branch of the military.

You may take the Armed Services Vocational Aptitude Battery (ASVAB) to help you in deciding. This is a group of aptitude tests that are given by all of the military services. It provides scores which show how you might perform in various training and career fields within the military branches. Taking this test battery can help you identify the career and training areas in the military which suit you best. It does not obligate you to enter the military, nor does it guarantee that you will be accepted.

There are educational benefits for veterans which may permit you to continue your education upon completion of your military service. See Financial Aid, page 26, in this booklet to learn more about these benefits. For other information about the military services, talk to your counselor or visit the recruiting offices of the branch or branches of the military you may want to consider.

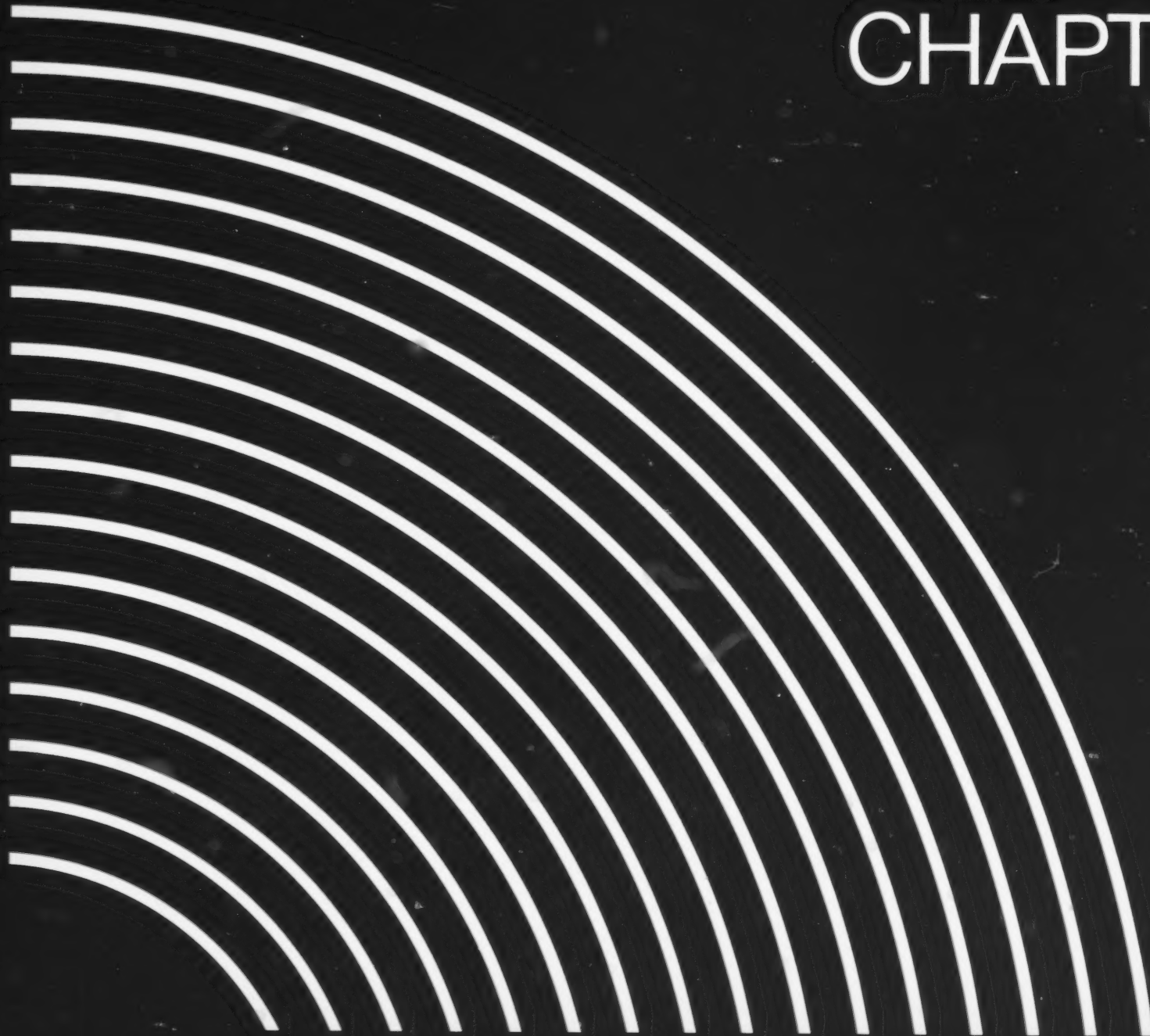
Additional Source of Information

U. S. Department of Defense
Washington, D. C. 20301



CHAPTER 3

FINANCIAL AID



FINANCIAL AID

There are many kinds of financial aid programs to help pay for your education after high school. Financial aid is available from federal and state governments, banks, and civic, labor, and professional organizations and foundations. Aid can range from a small scholarship to a financial aid package which provides full tuition and expenses. Most financial aid programs encourage you to provide some portion of your education expenses.

How and When to Apply You may receive financial aid only if you apply for it, but you must apply correctly and within deadlines. When applying to an educational institution, you should submit an application for financial aid, either the Financial Aid Form (FAF) or the Family Financial Statement (FFS). This application should be sent with your application for admission and the institution's financial aid form. You can get the financial aid application forms from your counselor or the financial aid officer at the institution to which you are applying.

To complete these forms, you and your parents will need to have certain financial records. These include:

- Current IRS tax returns
- Current state and local income tax returns
- W-2 forms and other records of money earned
- Records of nontaxable income, such as veterans benefits, social security, aid to families with dependent children (AFDC), aid to dependent children (ADC), or welfare benefits



- Current bank statements
- Current mortgage information
- Records of medical and dental bills for the current year
- Current business, farm, and/or investment records

Once you are enrolled at the institution you will be attending, be sure to consult early with

the financial aid office about applying for aid for the next academic year. In most cases, you will have to submit your application for aid for the next academic year sometime between January 1 and March 1. Because the deadlines vary for private scholarships, check with private funding sources directly in order to learn their requirements.

TYPES OF FINANCIAL AID

The three basic types of financial aid are (1) loans, (2) grants, scholarships, and work/study programs, and (3) earned educational benefits. Eligibility requirements for these programs change from time to time.

Loans A loan is money provided you for a specified period of time. You are expected to repay the loan, generally with interest. Loans are available for most education-related expenses. In most educational loan programs, the interest rate is lower than current commercial bank rates. The following are some types of educational loans which are currently available to both undergraduate and graduate students:

Guaranteed Student Loan (GSL) is a federally subsidized loan program available to undergraduate and graduate students. You must prove financial need each year in order to receive this loan. The loan is interest-free while you are enrolled as a full- or half-time student. Repayment begins six months after you complete your education or are enrolled as a student less than half-time. You have as long as ten years to repay your loan.

National Direct Student Loan (NDSL) is a joint federal/college loan. Usually this type of loan is limited to undergraduate and graduate students with the greatest financial need. You should inquire about your eligibility when you apply for admission. Repayment begins several months after you complete your studies and can be extended over a ten-year period.

Virginia Education Loan Authority (VELA) is



a major source of Guaranteed Student Loans for eligible state resident students. If you are unable to secure loans from other sources, including banks, you should inquire about VELA loans at the financial aid office at the college or university which you plan to attend.

PLUS Loans allow your parents to borrow from a bank for your education if you are still

their dependent. If you are not, you may borrow on your own as an independent undergraduate or graduate student. This is an unsubsidized loan program, with a higher interest rate than the GSL. It is designed to assist the middle income families unable to receive enough aid from other sources. Repayment on a PLUS loan must begin 60 days after you receive the loan and can be extended over a ten-year period.

Grants, Scholarships, and Work/Study Programs These are awards you are not required to repay. For most of them, there are continuing eligibility requirements, such as maintaining a certain level of academic or athletic performance, or showing evidence of continued financial need. The following sections provide information about these awards.

The Pell Grant, formerly known as the Basic Education Opportunity Grant (BEOG), is one of the largest federal student aid programs. Its purpose is to provide part of the money needed by undergraduate students to continue education after high school. This means that you have to combine the Pell Grant with other resources to finance your education. The United States Department of Education sets eligibility requirements for this grant. If you qualify, you will receive a set amount of money to apply toward your educational expenses.

Supplemental Education Opportunity Grant (SEOG) is a joint program between the federal government and an institution. It offers grant aid to undergraduate students. Individual institutions set up their own eligibility requirements for these grants.

Virginia Transfer Grant Program (VTGP) is designed to encourage "other race" students to transfer from two-year institutions to Virginia's public four-year colleges and universities. Students with at least a sophomore status, but out of school for a number of years, may apply through the State Council of Higher Education for Virginia. Two-year institution transfer students should apply through the financial aid office at their present schools. These \$1,000 grants are renewable for one additional year.

College Scholarship Assistance Program (CSAP) is a grant program for undergraduate students who are Virginia residents. Students must be able to show financial need, and want to attend a public or private postsecondary institution in Virginia. The program is administered by the institution in cooperation with the state. If you are eligible for this grant, you must apply through your college or university by April 15th for aid during the next academic year. Your institution will then recommend you to the State Council of Higher Education for Virginia. If the Council determines you are qualified, you will be notified of your award by your college or university prior to the start of classes in the fall.

Tuition Assistance Grants (TAG) are available to you if you are a Virginia resident and are planning to attend a private, non-sectarian college or university in Virginia. TAG, which is administered by the State Council of Higher Education for Virginia, is not based upon students' financial need.

Federal Work/Study Program is for undergraduate and graduate students. If you qualify for the program, you may earn a fixed amount



of money during the school year by working in an approved work/study job at your college, university, or other nonprofit agencies. Usually, students accepted into the program are able to be placed in work/study positions by the financial aid office of their college or university. However, there is no guarantee of placement. If you receive a work/study position, you will be paid weekly for the number of hours you work, until you have earned the amount allowed for the year. If you are interested in this program, contact the college's work/study program coordinator at your institution before classes start in the fall. This early contact will give you the best chance of getting a position.

Institutional and Private Scholarships are available. Many colleges and universities and their academic departments give scholarships to students. The best known of these is probably the athletic scholarship. This scholarship pays part of your educational expenses if you qualify for collegiate varsity athletics.



There are a number of institutional and private scholarships. Some are given for outstanding academic achievement or talent. Others are awarded to help students obtain certain types of training, or to encourage them

to continue their education. Ask your counselor, financial aid officer, or the academic department of the institution to which you are applying about these sources of aid. Your parents' employers, labor unions, civic and religious organizations, professional associations, and other private groups also may be sources of possible scholarship aid for you.

Earned Educational Benefits In addition to loans, grants, and scholarships, there are other financial aid programs for which you may qualify.

Veterans benefits are available if you pursue a military career before continuing your education after high school. You can be eligible to receive monthly grants to continue your education after you leave the service. To qualify, you will be required to contribute a percentage of your pay to a special fund while you are on active military duty. The government also will contribute to the fund.

Spouses and orphans of deceased veterans should inquire to determine their eligibility for educational benefits. If you are interested in learning more about these benefits, contact the military services or the local Veterans Administration Office.

Reserve Officers Training Corps (ROTC) Benefits are available for persons who participate in the ROTC program during their college years. These benefits include the opportunity to compete for a scholarship. This scholarship pays all academic fees, tuition, books, and materials, plus a tax-free living allowance each month while you are in school. In addition, you can compete for subsidized law and medical

training programs. More information can be obtained from the ROTC program at institutions which offer it or from your school counselor.

Other Financial Aid Programs of the Military Services also provide educational benefits. The Navy provides financial assistance through the Non-Commissioned Officer Association and the Navy Relief Society. The Air Force provides assistance through the Air Force Aid Society. Additional information may be obtained from the military services.

Self-Help Most financial aid programs are not designed to cover fully all of your expenses in continuing your education. Therefore, you should expect to pay a portion of your own education expenses while in school. You can do this in a variety of ways such as:

- Using your own savings
- Obtaining financial assistance from your parents or other family members
- Working part-time
- Working during the summer and saving money for the next academic year

Internship and Cooperative Education Programs There are several educational programs which can provide some income for you and help pay a part of your education expenses. These programs are paid academic internships and cooperative education positions. They provide work experience related to your academic training. Contact the admissions office at colleges and universities in which you are interested for information about these programs.



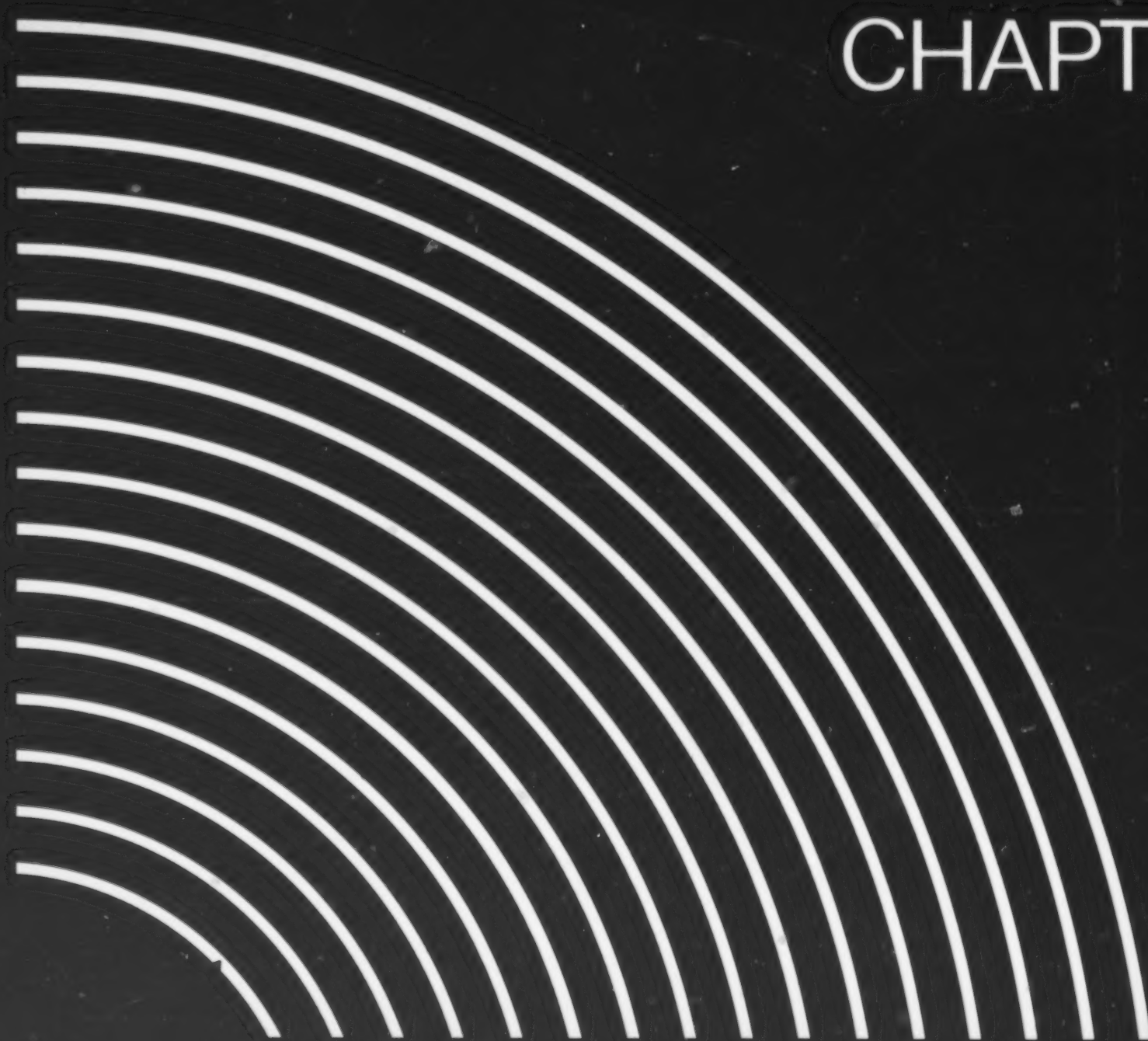
Each of the financial aid programs described in this booklet is designed to help you continue your education after high school. Remember that financial aid programs are a privilege, not a right. Use them. However, in doing so, be responsible for the agreements you sign.

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CHAPTER 4

CAREERS



CAREERS

When and where you start your career will depend mainly on the beginning requirements for that career. One of the most important requirements will be the education you will need for that career.

In choosing a career, you will need to know what careers are available. You also will need to know about the education needed for them. After you have read about careers in this booklet, talk with your counselor, your parents, and people in fields which interest you. Use your school's career resource center for more specific information. Also, look at the Virginia VIEW, the *Occupational Outlook Handbook*, and the *Dictionary of Occupational Titles*. These resources will provide more detailed information about careers. In learning about careers, you will see that the key to entering a career and advancing in it is education.

Sometimes people change their minds about the kinds of careers they want. You may change your mind later about the career you choose now. Most careers, however, will give you experiences and skills which you may use in other types of careers.

This booklet describes the 12 career areas in the U.S. Department of Labor classification system. There is information about what kinds of work people do and where they work. There also are facts about worker characteristics and the education needed for these careers. Last, there is information about future employment.



ARTISTIC CAREERS

Artistic careers involve the creative expression of feelings or ideas through media. These careers are grouped into the eight areas described below.

People in *literary arts* write, edit, analyze, or direct the publication of written materials. Some write short stories, poems, or plays. Others edit the work of writers or review books and plays. Many literary artists are employed by newspapers, magazines, and television and radio stations.

People in *visual arts* paint, sketch, design, sculpt, or restore original works of art. Some teach in schools and colleges or work in museums. Others create graphic designs for businesses or advertising agencies.

People in the *performing arts* work in drama, music, or dance. They teach, direct, perform, or compose works for dance companies, theater groups, orchestras, bands, movies, television, and radio.

Technical artists create articles from wood, clay, stone, metal, leather, jewels, and other materials. Some restore old photographs or refinish antique furniture. Some are employed by business and industry. Many are self-employed and sell their products at craft fairs or at shops or galleries.

Amusement workers perform magic acts, do stand-up comedy, or announce entertainment acts. They often work in television or in theme and amusement parks.

Models are usually involved in selling products such as clothes, cars, make-up, and appliances. Models also work for artists and photographers and as "stand-ins" for actors and



actresses in movie and television.

How to Qualify for Entry It is possible to enter some artistic careers with little formal education. Most occupations in this area, however, require education after high school and experience in the field. Newspaper reporters are expected to have a bachelor's degree. A bachelor's degree and certain education courses are required in order to teach art or

music in public schools. To teach at a college, people usually are required to have completed graduate study in their field.

Education Colleges and universities, as well as junior and community colleges, offer programs of study for artistic careers. A liberal arts education also can be helpful in preparing to enter this field.



Characteristics of Workers People in artistic careers are usually creative, imaginative, and talented in their artistic areas. Through their work, they are able to communicate ideas and feelings to others.

Employment Outlook There is much competition for jobs in artistic careers. However, those who are well-trained and the most talented have the best chance of finding employment.



SCIENTIFIC CAREERS

Scientific careers involve studying, collecting, and analyzing information about the natural world. Scientific careers are grouped into the four areas described below.

Physical scientists, such as chemists, astronomers, geologists, and physicists, study the earth and the universe. Their work requires the use of mathematics and science. They apply their knowledge to the development of new products and processes. Most physical scientists are employed in industry, government agencies, or large universities. Many of them work as researchers.

Life scientists study plants and animals to understand their life processes. They do research on such problems as the effects of the environment on living things, the development of new food crops, and the control of diseases in humans and animals. They usually work for hospitals, government agencies, industries, or universities.

Medical scientists, such as doctors, dentists, and veterinarians, study, diagnose, and treat the illnesses of people and animals. Most people in this career area work for hospitals or clinics. Some are self-employed and have their own offices or clinics.

Laboratory technologists assist physical, life, and medical scientists in their work. They set up laboratory experiments, run tests, and record data from tests and experiments. Laboratory technologists are employed by hospitals, clinics, government agencies, industries, and universities.

How to Qualify for Entry People who be-



come physical, life, or medical scientists must have from four to 12 years of education after high school. It is possible to enter some physical or life science positions with only a bachelor's degree. Graduate degrees, however, are almost always required for jobs in these fields. Doctors, dentists, podiatrists, and veterinari-

ans usually receive a bachelor's degree in some scientific area. Then they must complete four years of medical school and at least three years of residency at a hospital. Also, most medical science occupations require a person to pass a state board examination.

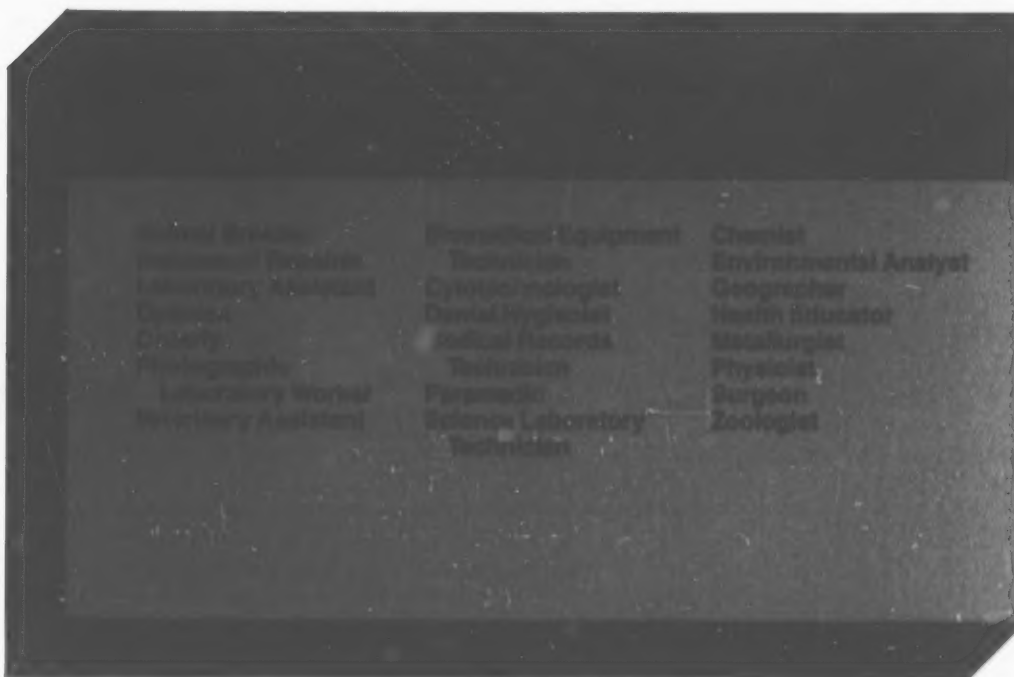


Laboratory technologists usually complete one to ten years of education after high school, depending on the nature of their work. Most of them, however, have either a two- or a four-year college degree.

Characteristics of Workers People in scientific careers are analytical and precise, are interested in science and mathematics, and enjoy solving problems. They also are able to communicate well both in writing and speaking.

Employment Outlook Jobs in scientific careers are often very competitive. The availability of jobs for physical and life scientists

and laboratory technologists depends upon the economy. When the economy is strong, industries and government tend to spend money on research and development; at such times, more jobs are available for these workers. Medical scientists usually have little difficulty finding employment. The key to becoming employed in a scientific career is doing well academically, not only in mathematics and science, but also in all other subjects.



NATURE CAREERS

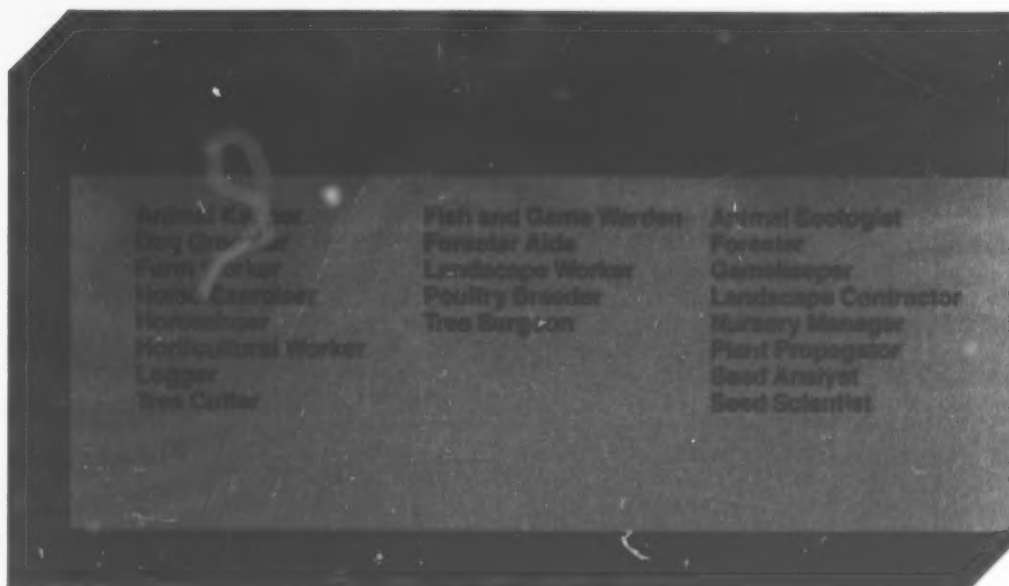
Workers in *nature* careers deal with the physical care of plants and animals. These careers are grouped into the four areas described below.

People employed in *managerial work* in the field of nature plan, manage, and direct the work on farms and ranches, in logging industries and forest preserves, and in horticultural and landscape businesses. For example, some advise farmers on ways to improve the quality of their products. Others design and direct the cutting of timber and the replanting of forests.

Workers in *general supervision* in this career field work under the direction of managers. They supervise other workers in tasks such as planting and harvesting crops or milking and breeding dairy cows. Some inspect fields for insect or plant diseases, or supervise ground crews in parks.

Animal training and service occupations involve the care, feeding, and training of animals. These persons do not work with animals raised as livestock. Instead, they perform tasks such as training horses to race or training dogs to obey commands. Some provide care for mice, guinea pigs, and other animals used in medical research. These workers are employed at zoos, aquariums, horse farms, obedience schools, kennels, pet shops, research laboratories, animal shelters, and veterinarians' offices.

People in *elemental work* in this career area perform tasks which require physical strength and energy. They usually operate heavy equipment or machinery. They may set com-



mercial fishing nets, operate farm machinery, or cut trees. Such workers are employed on farms and ranches, at logging camps and fisheries, in forest and game preserves, and at commercial businesses and government agencies.

How to Qualify for Entry Experience is important for getting a job in this field. It also helps to have a degree in an agricultural area from a two- or four-year college if you want a management or supervisory position. Some of these occupations require only several weeks of training. Others require as much as four or

more years of education after high school.

Characteristics of Workers People in this career field enjoy working with plants and animals and like to work outdoors. Workers must have physical stamina for many of these jobs. Furthermore, they must be able to deal with different types of people.

Employment Outlook The outlook for most jobs in this area seems good through the 1980's. However, there probably will be fewer farming positions because of the trend toward fewer and larger farms.

AUTHORITY CAREERS

Authority careers deal with law enforcement or personal protection. These careers are grouped into the two areas described below.

Persons in safety and law enforcement are concerned with seeing that laws and regulations are carried out effectively. They direct and coordinate the activities of police and fire departments, investigate crimes, or patrol in the community to maintain adequate safety and security. Some people in these occupations work for private businesses. Most, however, are employed by police or fire departments.

Workers in security services careers protect people and property from illegal activities and hazardous conditions. Some guard money and valuables being transported in armored trucks, or guard inmates in jails or prisons. Others patrol our country's borders to prevent people from entering the country illegally. Most of these workers are employed by the government. Businesses also hire security personnel to protect their buildings and employees. In some cases, people in this field are self-employed and serve as private investigators or bodyguards.

How to Qualify for Entry Authority careers require various combinations of experience and education. Secret Service or CIA agents must have at least a college degree in areas such as accounting, chemistry, computer science, or criminology. However, most guard and corrections workers need only a high school diploma.



Characteristics of Workers People in this field must be able to use good judgment, be physically fit, and able to deal with various kinds of people. They must understand laws and regulations and be skilled in using guns and safety equipment.

Employment Outlook The outlook for employment in this career area appears to be very good, especially for those with the right education and training.



MECHANICAL CAREERS

Workers in *mechanical* careers use machines and tools to design products, operate equipment, test machinery, and construct buildings and bridges. Mechanical careers are grouped into the 12 areas described below.

Engineers use scientific knowledge and mathematics to plan, design, and direct the construction of buildings or the development of products. Some engineers work on plans for the construction of bridges and for the design of computer systems. Others design industrial equipment and consumer products such as cars and stereos. They also work in testing, production, and maintenance. Engineers usually specialize in one area of engineering, such as electrical, mechanical, chemical, industrial, civil, or mining engineering. They work in business, industry, and government.

People in *managerial work* in this field direct, coordinate, analyze, and inspect the work of people in industry. They may direct drilling projects or study and improve the communication systems for television news programs. Some inspect waste water treatment centers and landfill sites. They are employed by government agencies and in manufacturing, transportation, communications, and mining industries.

Engineering technology workers use scientific knowledge, mathematics, and industrial machinery in their work. They may compile data for engineers or develop detailed drawings of mechanical devices. Some analyze survey data to make maps or organize and direct surveying projects. Engineering technologists work for construction companies, manu-



facturing industries, architectural firms, and research laboratories.

Air and water vehicle operators move people and cargo by plane or ship. They pilot aircraft and navigate ships by using highly technical equipment and maps to plan and direct their course. Some teach other people to fly planes or navigate ships. Many of these workers are employed by commercial airlines, shipping companies, private businesses, or indi-

viduals. Some, however, are self-employed and operate their own planes and ships.

Craft technologists use their hands or machines to do highly skilled, custom work. They may design metal castings or patterns for use in foundries. They may assemble and repair diesel engines, boilers, or tanks. Some repair antique rifles or tune musical instruments. Craft technologists are employed in both manufacturing and non-manufacturing industries.

Many are self-employed and have their own shops.

Systems operation work is the control and maintenance of equipment used in mechanical systems. Some workers in this area operate and maintain heating, cooling, electrical, or water systems in businesses or apartment buildings. Others supervise the work of crews responsible for generating and distributing electricity. Persons in these jobs work for utility companies, oil refineries, construction companies, businesses, and government agencies.

Quality control workers inspect, test, and measure equipment, systems, materials, and products. They see that safety and production standards are met. For instance, some test jet engines for safety and performance. Others measure and test equipment to make sure that design specifications have been met. People in quality control are employed in manufacturing, utility, and construction companies. They also work in mines and government agencies.

Land vehicle operators operate trucks, buses, and trains to move people and products. Some of them drive ambulances and, thus, must have special knowledge of moving the sick and injured. Most jobs for these workers are found with trucking companies, railroads, and other transportation companies. Many other businesses hire these workers to pick up and deliver materials or people. Some drivers are self-employed.

Materials control work includes shipping, storing, and receiving materials and products. Workers in this field count and check items in shipments to see that all items are received or shipped. They also store and distribute equip-



ment in places such as hospitals, offices, and gymnasiums. People in this field work in department stores, fast food restaurants, factories, hospitals, universities, and government agencies.

Skilled hand and machine workers plan, prepare, install, and repair materials, products, and parts. They work in repair shops, garages, mines, stores, construction, and hotels. Some of them prepare and cook food in restaurants. Some plan and set explosive devices for road construction or mining operations. Others repair or adjust household appliances.

Equipment operators use heavy equipment to drill, mine, dig, or move materials. Some workers in this field operate bulldozers to grade highways or steamrollers to pave them. Others operate drilling rigs, earth-boring machines, cranes, and mining machines. They are employed at mining and construction sites,

as well as at factories, warehouses, and docks.

The work described as *mechanical elemental work* generally does not require any special skills. Workers in this group perform tasks such as carrying heavy materials, sweeping and cleaning work areas, and placing cables around logs, barrels, or boxes. In general, these workers follow a particular routine and make few decisions on the job. Many of them are employed by construction, transportation, and mining companies.

How to Qualify for Entry Mechanical careers include some occupations requiring little or no training beyond high school. Some mechanical occupations, however, require a bachelor's degree or more. For example, workers in land and water vehicle operation and those in material control may need little or no education beyond high school. However, they can expect to receive on-the-job training. Some mechanical workers, such as aircraft mechanics, chefs, and instrument technicians, must complete additional education after high school at a community college or vocational/technical school.

People in managerial work, as well as in engineering technology and some other mechanical occupations, need between one and ten years of education beyond high school. Engineers must have at least a bachelor's degree in one of the engineering fields to get a job as an engineer. Some areas of engineering, such as biomedical or environmental engineering, however, require a graduate degree.

Many mechanical career occupations require some type of licensing. Some licenses require the completion of a certain number of

years of education, on-the-job experience, and passing state examinations.

Characteristics of Workers People in mechanical careers enjoy solving problems and working with numbers. While engineers need to know higher levels of mathematics and science, almost all occupations in this career field require a good understanding of basic arithmetic and geometry. Most workers in this field must be able to take precise measure-

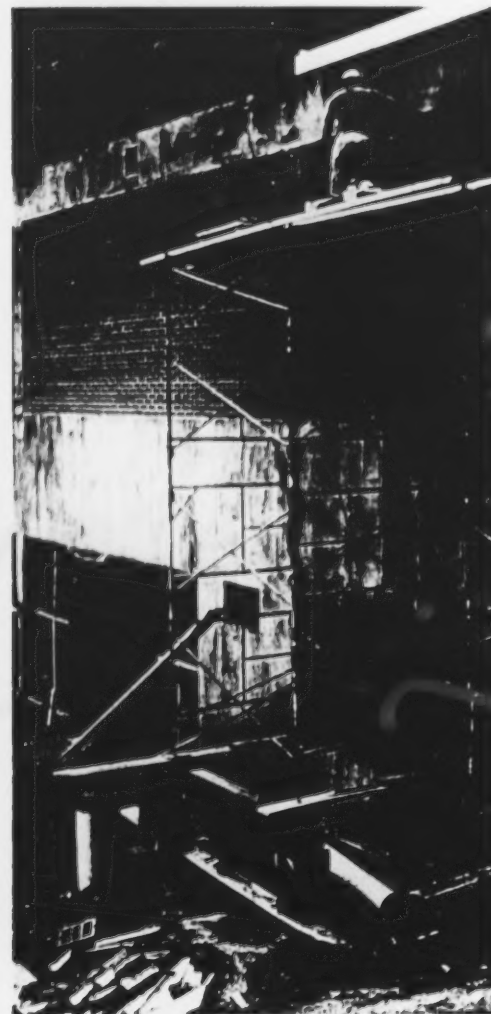
ments, keep accurate records, pay attention to details, and visualize an unfinished product. People in mechanical careers need to be able to deal well with others and must have good oral and written communication skills.

Employment Outlook The occupational outlook for mechanical careers is good for the 1980's. Workers in this area must keep their education current so that they may move into the new jobs that technology will create.

Construction Worker
Dispatcher
Ferryboat Operator
Pipe Fitter
Plasterer
Stockroom Clerk
Truck Driver

Air Traffic Controller
Boilerhouse Mechanic
Electrical Technologist
Mechanical Drafter
Mechanical Test
Technician
Safety Inspector
Surveyor

Aerospace Engineer
Biomedical Engineer
Cartographer
Chemical Engineer
Electrical Engineer
Industrial Engineer
Mechanical Engineer
Plant Manager



INDUSTRIAL CAREERS

Industrial careers require the performance of repetitive, concrete, organized activities in factory settings. Occupations in this career field are grouped into the four areas described below.

Workers in *production technology* careers have special knowledge of the machines and processes which they use to do very delicate and complex tasks. For example, some production technologists set up textile weaving looms. Others use special instruments to inspect watches, or assemble optical instruments. The majority of workers in this area are employed in factories.

Production workers perform skilled hand and/or machine work in factories in the manufacturing of products. Some use power tools to install automobile parts. Others use machinery to determine the amount of fabric to be used in clothing. These people work in textiles, metal processing, paper, wood, petroleum, chemical, and food processing industries.

Quality control workers check manufactured products to be sure that they meet quality standards. Some of these workers examine furniture after production. Others inspect lenses for flaws and defects. Most people in this field are employed by large processing and manufacturing plants.

People in *industrial elemental work* do routine tasks. They may feed and tend machines and equipment, use handtrucks to move supplies, or clean and polish products on an assembly line. These workers also assist the more highly skilled industrial workers in factories.



How to Qualify for Entry The educational requirements for entry vary from little or no training to over ten years of education beyond high school. Many occupations in this career

area require apprenticeship training and on-the-job training.

Characteristics of Workers People in this field must be able to follow instructions well and do repetitive work. They must have good math skills because many of these occupations use measuring, computing, and record-keeping. Good eye and hand coordination is necessary for many jobs in this area. Some people in production technology and production work must also be able to direct the work of others.

Employment Outlook The outlook for employment in industrial careers depends on the specific occupation. Changing technology may decrease the number of jobs in some occupations. Therefore, it is important for workers in this area to keep their skills up-to-date.



BUSINESS DETAIL CAREERS

Business detail careers involve accuracy and attention to detail in business operations. Workers in this field generally are employed in office settings and are grouped into the seven areas described below.

Administrative detail workers perform routine clerical work which requires special skills and knowledge. They prepare correspondence and keep records for organizations and businesses, search public records for insurance companies, and organize and direct clerical operations. They are employed in business offices, courts, and government agencies.

Mathematical detail workers gather, organize, compute, and record numerical data for use in business and financial matters. For example, some compute wages for payroll records or figure the cost of labor and materials for production records. Others check credit information or work as statistical or insurance clerks. These workers are employed by banks, finance companies, accounting firms, businesses, industries, and government agencies.

People who work in the area of *financial detail* receive money, operate cash registers, and keep records of money. Some work as check-out clerks at grocery stores or as bank tellers. These workers usually are found in businesses where money is paid to or received from the public.

Workers in *oral communications* do such things as take orders, give directions, interview people, and register guests. They are em-



ployed in occupations such as telephone switchboard operators, census takers, receptionists, and tour guides. They work in private businesses, schools, hospitals, tourist attractions, hotels, and government agencies.



Records processing workers prepare, review, maintain, route, distribute, and coordinate business records. They perform tasks such as sorting and delivering mail, filing correspondence, reading typeset copy, and taking dictation. People in this area are employed by almost every business, institution, and government agency.

Clerical machine operators use business machines to type, print, sort, compute, copy, send, and receive information. Some of these workers operate word processing equipment, billing machines, telegraphic typewriters, computer terminals, and keypunch machines. They are employed in a wide variety of businesses, industries, and government agencies.

Workers in *clerical handling* jobs perform routine office tasks. They deliver messages, pick up packages, supply office workers with pencils, paper and other materials, and prepare packages to be mailed. They usually work for large businesses, industries, and government agencies.



school graduates, however, are able to qualify for some occupations in this career area because on-the-job training is provided.

Characteristics of Workers People who enter this career area need to be able to speak and write clearly. They also must have skills for working well with others. In occupations which require working with numerical data,

workers need strong arithmetic skills and the ability to compute and record numbers accurately.

Employment Outlook The job outlook is very good for this career area through the 1980's. Workers in this field need to keep their skills current and be aware of how changing technology will effect their jobs.

How to Qualify for Entry To enter occupations in this career area, it is often helpful to have an associate degree in business or secretarial science from a two-year college. High

Bookkeeper
Cashier
File Clerk
Food Checker
Office Clerk
Secretary
Statistical Clerk
Telegraph Clerk
Teller

Accounting Clerk
Airline-Radio Operator
Brokerage Clerk
Office Supervisor
Survey Worker
Travel Guide

Financial Aid Counselor
Registrar

PERSUASIVE CAREERS

People in *persuasive* careers use sales and promotional techniques to persuade people to buy products or services. Occupations in this career field are grouped into the three areas described below.

Sales technology involves selling technical products and services, such as industrial equipment, computer equipment, pharmaceuticals, securities, and insurance. Jobs in this field often require specialized knowledge of the products or services being sold. Sales technology workers are employed by manufacturers, wholesalers, and insurance, financial, and business service institutions. Some also are self-employed.

Workers in *general sales* demonstrate and sell many types of products and services. They work for retail and wholesale firms, manufacturers and distributors, business services, and non-profit agencies.

People in *vending* sell novelties and snacks, particularly at entertainment and sports events. Some sell flowers, vegetables, or other products at street stands and farmers' markets. Others take pictures of people dining in restaurants and try to sell them the finished photographs. Most vendors move from place to place selling their products. They work for or near recreation and entertainment establishments such as restaurants, stadiums, and fairs.

How to Qualify for Entry Different kinds of education are required for various occupations in this field. Some jobs in sales technology



require a college degree in science, engineering, marketing, business administration, or liberal arts. Other sales positions, such as real estate sales, involve on-the-job training, employer training, and specialized college courses. For some sales positions, such as vending jobs, only a high school education is needed.

Characteristics of Workers People in persuasive careers are convincing and able to communicate clearly. They must be knowl-

edgeable and enthusiastic about the products or services they are selling. It is important for them to have mathematical skills for keeping accurate records of their sales and purchases. Most workers in this field also need to be able to organize their time well.

Employment Outlook The outlook for occupations in this field is very good through the 1980's. The number of jobs to sell technical equipment and professional services is expected to increase very rapidly.

ACCOMMODATING CAREERS

Workers in *accommodating* careers provide services and conveniences for others. Occupations in this career field are classified into the five areas described below.

People in *hospitality services* greet guests, seat customers, escort groups of people, and provide personal services. Some workers in this area conduct tours of historic places, factories, or television studios. Others welcome customers at restaurants and take them to tables to be seated. Hospitality service workers are employed by transportation companies, radio and television stations, movie studios, hotels, restaurants, and museums.

Barber and beauty service occupations involve the care of hair, skin, and nails. Workers in this area cut, shampoo, and style hair, or manicure nails. Some work in department stores, hotels, and barber and beauty shops. Others are self-employed and operate their own shops.

Passenger service workers transport people in vehicles such as buses, taxis, and limousines. In addition to driving, they often are required to keep records of their fares and destinations. Some people in this field teach others to drive. Passenger services workers usually are employed by taxi, bus, and airline companies, individuals, and government agencies. Some, however, are self-employed.

People in *customer service* occupations provide many services to customers. They perform jobs such as delivering newspapers, selling food at concession stands, and renting



equipment at recreational areas. Hotels, restaurants, stores, and amusement parks are among the many places which employ customer service workers.

Workers in *attendant services* perform tasks which make life easier or more pleasant for others. For example, they carry luggage, retrieve bats and balls at baseball fields, and clear dishes off restaurant tables. They are

employed at hotels, restaurants, sports facilities, and amusement parks.

How to Qualify for Entry Jobs in *accommodating careers* do not require extensive education after high school. Many employers provide on-the-job or special training for workers in these occupations. A good example of this is the training for flight attendants. However,

training is available at community colleges and proprietary schools for occupations such as cosmetology and food services. Continued education can be helpful to workers in this field for being promoted or transferred into other aspects of the business.

Characteristics of Workers People in these occupations must enjoy working with other people and be able to put them at ease. It is

important that they be able to follow instructions and to speak and write clearly. Many jobs in this field require workers to have a good deal of physical stamina.

Employment Outlook The job outlook for accommodating careers is expected to be good throughout the 1980's. As leisure time increases, more jobs will become available, especially those related to travel and tourism.



HUMANITARIAN CAREERS

People in *humanitarian* careers help people who have personal, social, vocational, medical, educational, or spiritual problems. Humanitarian occupations are classified into the three areas described below.

Social service workers assist people with many types of problems. They may work with one person at a time, with families, and with larger groups of people. They do various things, such as assisting ex-offenders to find jobs when they leave prison, providing spiritual comfort to members of a religious congregation, or counseling people about educational and career decisions. Social service workers are employed at schools, colleges, churches, rehabilitation agencies, hospitals, clinics, guidance centers, welfare agencies, and employment services.

Nursing, therapy and specialized teaching services involve working with the sick, the injured, and/or the handicapped. Nurses provide care for patients, including giving medication and reporting patient conditions to doctors. Therapists plan and direct physical exercises or music or art therapy for patients recovering from injuries, illnesses, or emotional problems. Workers in specialized teaching services may train people who have lost their hearing to read lips or to use sign language. Most people in this field work in hospitals, nursing homes, rehabilitation centers, schools, industrial plants, and doctors' offices.

Child and adult care workers assist professionals who teach young children or treat the sick and injured. Services they provide include helping the elderly bathe, feed, and dress



themselves, or administering first aid when someone is injured. Some collect routine medical information from patients, or assist teachers in supervising the activities of nursery school children. Many child and adult care workers are employed by day care centers, clinics, hospitals, fire departments, and nursing homes. Some are hired by individuals to care for young children, elderly parents, or sick relatives in the home.

How to Qualify for Entry The educational

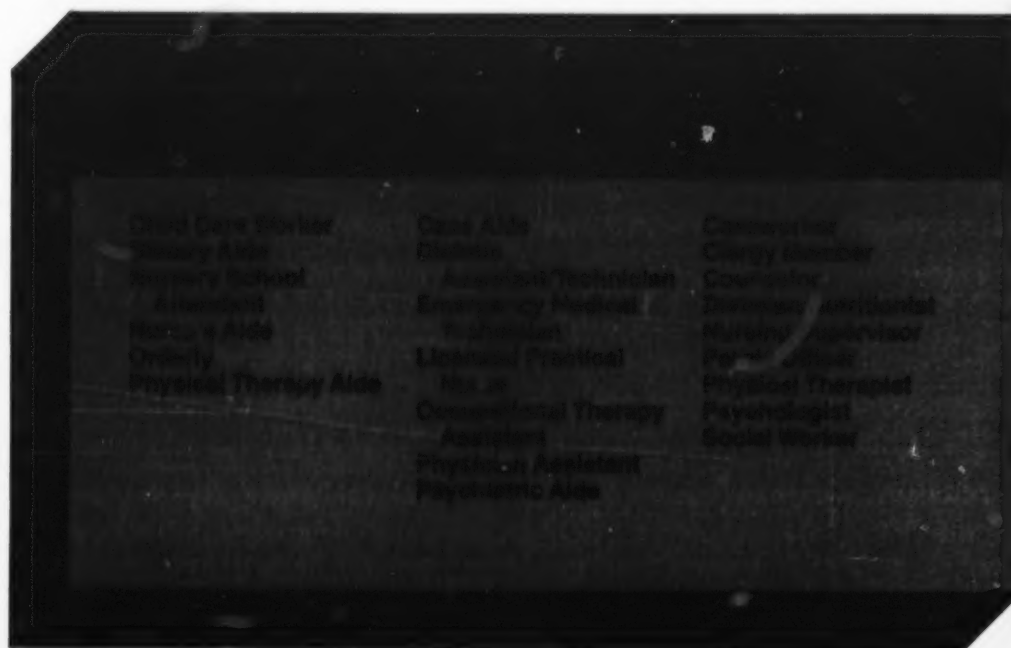
requirements for jobs in humanitarian careers vary. Social service occupations generally require at least a bachelor's degree. Some positions in social work, counseling, and psychology require the completion of master's level graduate study. School counselors must have a graduate degree and classroom teaching experience.

Jobs in nursing, therapy, and specialized teaching require specific kinds of education. Nurses must have a two-year associate degree, a three-year nursing diploma, or a bach-

elor's degree. For jobs in therapy and specialized teaching, a bachelor's degree in the particular area of specialization is needed.

Characteristics of Workers Workers in social service careers must be interested in people and able to gain their trust and confidence. They must think logically and remain calm in emergencies.

Employment Outlook The number of persons trained for humanitarian careers usually is larger than the number of job openings, except in some very specialized areas. To get these jobs, one should continue education beyond high school and get as much work experience and related volunteer service as possible.



SOCIAL BUSINESS CAREERS

People in *social-business* careers use high levels of verbal or numerical skills to manage or persuade others. Occupations are grouped into the 12 areas described below.

People in *mathematics and statistics* occupations analyze and interpret numerical data to help solve business or scientific problems. Mathematicians and statisticians work in business, industry, and government agencies and also teach in schools and colleges.

Careers in *education and library science* involve helping people to learn, acquire information, and understand themselves. Educators teach students from nursery school through college, as well as in business and industry. Librarians select, recommend, and process informational materials for individuals and groups. They work at public libraries, school and university libraries, and in specialized libraries of businesses and industries.

Workers in *social research* careers study past events, current social problems, or people and societies. They may collect and analyze economic data, study and organize historical documents, or conduct research on how animals and people learn. They are employed by schools, colleges, museums, research foundations, government agencies, and hospitals.

Law careers require knowledge of the laws which affect people and businesses. Lawyers advise people on their rights and responsibilities under the law and represent them in legal matters. Paralegal workers or law clerks help lawyers prepare legal papers, such as wills



and contracts, and assist in the practice of law in civil or criminal courts. People in law careers are employed by law firms, corporations, banks, universities, and other organizations. Some lawyers are self-employed.

Business administrators plan, organize, monitor, and set policy for the business, agency, or organization in which they are employed. They also direct the work of lower-level managers. For example, the president of a company sets the direction and policies for that company. A city manager administers a local government according to policies established by the elected officials or the city council. Some administrative positions require

specialized knowledge in fields such as chemistry, engineering, education, or banking. Administrators work for businesses, industries, professional associations, labor unions, and government agencies.

Finance careers involve the use of mathematical and analytical skills to design, examine, and interpret financial records and systems. People in this field may design accounting systems for organizations, or analyze credit information for making loans. They work for banks, loan companies, investment firms, businesses, industries, and government agencies.

Service administrators manage programs in agencies which provide health, welfare, education, or recreation services. Some administer programs in schools and colleges, direct city or county social service programs, or coordinate recreation programs or hospital services. They work in government and community agencies, hospitals, schools, and museums.

People in *communications* research, write, edit, and interpret information. They may translate materials from one language to another, write technical reports, or prepare political speeches and news broadcasts. Workers in this field are employed by newspapers, publishing firms, radio and television stations, businesses, industries, and government agencies.

Promotions workers advertise products and services, raise money, and influence people's opinions and attitudes. Some promotions workers write news releases, scripts, and materials which advertise new products. Others lobby for or against laws which affect profes-

sions, organizations, or businesses. They are employed by business, industry, social service organizations, professional groups, and government agencies.

Regulations enforcement occupations deal with enforcing government regulations or company policies. People in this field examine records, inspect products, and investigate services. For instance, revenue agents examine the tax records of individuals and organizations. Bank examiners investigate records and practices to see if banks are financially sound. Workers in this field are employed by government agencies, licensing agencies, mines, and retail stores.

People in **business management** carry out the policies and directions of top administrators, such as presidents, vice-presidents, and directors of large organizations. Business managers work in all types of businesses, industries, and government agencies.

Occupations in **contracts and claims** involve negotiating contracts and settling claims for companies and individuals. Some workers in this field negotiate contracts for musicians to perform in concert. Some interview people to settle damage claims due to defective equipment or merchandise. Contracts and claims workers are hired by insurance, construction, and transportation companies, booking agencies, resort hotels, and government agencies. Many people in this field are self-employed.

How to Qualify for Entry Most occupations in social-business careers require at least a bachelor's degree. Sometimes graduate study is needed, particularly for legal and administrative careers. It is possible to enter some

jobs in regulations enforcement, business management, and contract and claims with only one to two years of education after high school.

Characteristics of Workers People in this career field need to think logically and to solve problems. They also must be able to deal effectively with people and to speak and write clearly. Occupations in areas related to finan-

cial management require strong numerical skills and accuracy.

Employment Outlook The outlook for jobs varies widely, depending on the specific occupation. The outlook is good in areas such as finance, regulations enforcement, and contracts and claims. It will be more difficult to find employment in education, library science, and social research.



PHYSICAL PERFORMING CAREERS

Physical performing careers include teaching and coaching for athletic and sporting events, and competing in and officiating at them. Occupations in this career field are grouped into the areas described below.

People in *sports* occupations perform various jobs. Some teach sports such as tennis or swimming. Some coach a particular sport for a high school, college, or professional team. Others play on a professional or semi-professional team or enforce the rules at sporting events. They work at recreation centers, ski resorts, sports clubs, gymnasiums, stadiums, schools, and colleges.

Physical feats occupations involve acts which require special physical strength and skills. Generally, these workers perform to entertain people. Included in this group are high wire and trapeze artists, jugglers, acrobats, and those who perform in water ballets. Most of these people are employed by circuses, carnivals, theaters, and amusement and theme parks.

How to Qualify for Entry Physical performing careers usually require from six months to over ten years of education and training after high school. For example, athletic coaches need at least a bachelor's degree. They often are required to have completed graduate study in order to coach. Athletes are advised to get as much education as possible because pro-

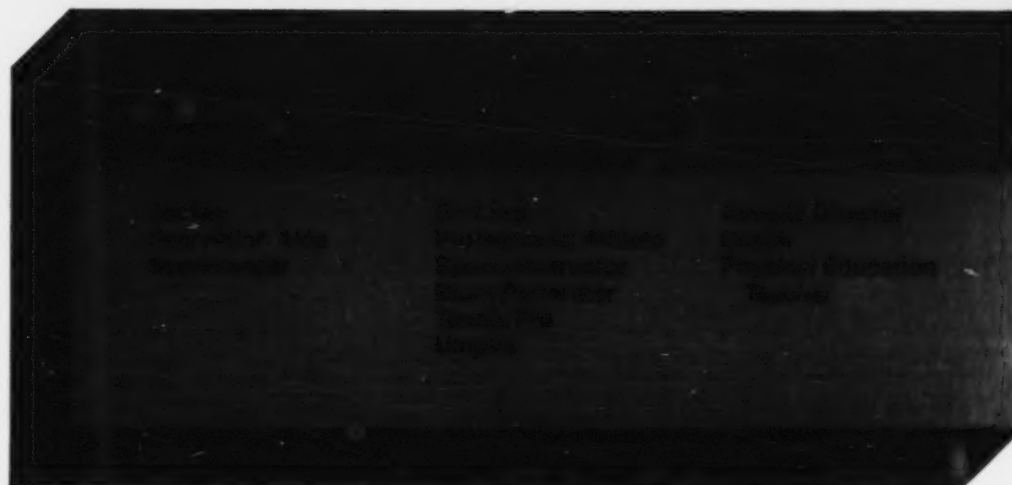
photo by Bill Bishop



fessional athletes often have short careers. Therefore, it is important for them to be prepared to enter other occupations when their sports careers end.

Characteristics of Workers People in this career area must have good physical coordination and be able to follow strict training rules. They also usually need to excel in their particular athletic event.

Employment Outlook The number of job openings is expected to increase in this field. Competition for jobs, however, will remain very keen.



FINDING A JOB

When you are ready to look for a job, there are many sources of information and help which you may use. The career planning and placement service at your college or school can be of great assistance to you. Your advisor or counselor also can help you to find job openings and to carry out your job search.

There are other sources of information you may use. You can apply for jobs advertised in newspapers. You can write to businesses, companies, or agencies related to your career interests and ask them about job openings. Employers are listed in directories published by local Chambers of Commerce, in the Yellow Pages of telephone directories, and in other directories of specific industries. These directories are in your local public library. Parents, teachers, instructors, and friends who are already working also may tell you about jobs that are available.

The Virginia Employment Commission (VEC) office in your locality is another source of help for you. There is no charge for using this service. It provides career counseling and testing services and information about current job openings. If you ask, you can get other kinds of assistance there. You can get help in preparing your job application and resumé and in learning interview techniques.

In most localities, there also are privately-owned employment agencies. These private agencies charge a fee if they place a person in a job. The fee can be paid by the employer or by the job applicant. If you consider using such an agency, be sure to find out in advance what charges and obligations will be required of you.



A FINAL MESSAGE FOR STUDENTS

This booklet has given you much information for planning your education and career after high school. You have been given resources to use and directions to follow. You have information about what may await you after high school.

Talk to your school counselor, your parents, and friends about your plans. Have your parents read this booklet so that they may help you to make your decisions. Use the resources

listed at the end of each major section. They can give you more specific information to help you plan better. Finally, write to or call the admissions offices of the institutions to which you are interested in applying.

If you are not planning now to continue your formal education after high school, talk with your counselor and parents about jobs in which you are interested. Also, use the resources suggested in this booklet to get further information about job opportunities.

Decisions you make now will have a direct effect on your future education and work as well as upon your future satisfaction in life.

KEY WORDS

Achievement Tests (ACH): Tests administered through the College Board in specific secondary school subjects and administered at test centers in the United States and other countries on specified dates throughout the year. These are used by some colleges in making admissions decisions and also for course placement and exemption. Only 50 colleges and universities in the nation require students to take the ACH for admission.

Admissions Test Program (ATP): A College Board program that provides college entrance tests and services for students applying for admission to college. The Scholastic Aptitude Tests (SAT), Test of Standard Written English (TSWE), and Achievement Tests (ACH) are included in this program.

American College Testing Program (ACT): A battery of tests of the American College Testing Program given at test centers in the United States and other countries on specified dates throughout the year. The results of these tests are used in admissions decisions of participating colleges. This test is used mainly in western and midwestern states.

Associate Degree: An academic degree given upon completion of a college undergraduate program of studies, usually two years in length. The degree carries the title of associate, and is generally an Associate of Arts (A.A.), an Associate of Science (A.S.), or an Associate of Arts and Sciences (A.A.&S.) Degree.

Bachelor's Degree: An academic degree given upon completion of an undergraduate

program of studies, usually four years in length. It is also referred to as the baccalaureate degree. The most common bachelor's degrees are the Bachelor of Arts (A.B. and B.A.) and the Bachelor of Science (B.S.).

College Level Examination Program (CLEP): A program of examinations in undergraduate courses and college subjects designed to provide students and other adults with an opportunity to demonstrate college-level achievement for which they have not previously received college credit. The program is used by some colleges, businesses, industries, and government and professional groups to meet various credential requirements.

Extracurricular Activities: Also known as co-curricular activities, this refers to activities sponsored and/or approved by the school, but for which no unit of credit is awarded. Examples of these are sports, clubs, publications, drama, music, social affairs, and student government.

Family Financial Statement (FFS): A document used by the American College Testing (ACT) Program's Financial Aid Service for parents of dependent students or independent students to use for providing information about their income, assets, expenses, and liabilities. The ACT Program uses these data to estimate the amount of money a family is able to contribute to a student's college expenses.

Financial Aid Form (FAF): A document used by the College Scholarship Service (CSS) for parents of dependent or independent students to provide information about their income, assets, expenses, and liabilities. The CSS uses these data to estimate the amount of

money a family is able to contribute to a student's college expenses.

Financial Aid Package: Financial aid drawn from any number of financial aid sources, such as loans, grants, work/study programs, and gifts, which are combined to provide the most financial assistance possible for a student.

Grade-Point Average or Ratio: A system used by many high schools and colleges to show the overall scholastic performance of students. In high schools the Grade Point Average (GPA) is determined by adding the sum of the value of the grades a student has earned in each course and dividing by the number of course credits. Typically, the numerical value for grades is A = 4, B = 3, C = 2, D = 1, and E or F = 0. In colleges the GPA is established by first determining the number of grade points a student has earned in each course, which is dependent upon the number of credits each course is worth, and then dividing the sum of all the grade points by the number of hours of course work attempted.

Graduate: This term is applied to students, programs, and institutions affiliated with education beyond the baccalaureate degree.

High School Program of Studies: A specified number of courses in prescribed subject areas that make up an approved high school education.

Master's Degree: Generally, a degree requiring more than four academic years of college work, usually one or two years of study beyond the bachelor's degree. The three most common master's degrees are the Master of Arts (M.A.), the Master of Education (M.Ed.), and the Master of Science (M.S.).

Post-High School Institutions: Any educational organization, such as a college or proprietary school, that offers an educational program and/or training beyond that offered at the high school level.

Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT): This is a short version of the Scholastic Aptitude Test and is administered by high schools each year in October. The results are used as counseling aids in the early guidance of students planning for college application. The test also serves as the qualifying test for scholarships awarded by the National Merit Scholarship Corporation.

Quarter: This is an academic calendar period of about 11 weeks. Four quarters constitute a calendar year, but most students enroll for only three quarters each calendar year. Students can accelerate by attending four quarters in a calendar year.

Scholastic Aptitude Test (SAT): This test, given by the College Board, measures verbal and mathematical skills. It is administered on specified dates at test centers throughout the United States and other countries. It is required of applicants by many colleges and for many financial aid programs.

Semester: This is a period of about 17 or 18 weeks which makes up half of the usual academic college year. Students normally enroll for two semesters during a calendar year but can accelerate by attending summer sessions during a calendar year.

Transfer Program: An education program in a junior college or community college that is designed primarily for students who plan to

continue their studies at a four-year college or university.

Trimester: This is an academic calendar period of about 15 weeks. Three trimesters make up one academic year. Students normally enroll for two of the trimesters each year, but can accelerate by attending all three trimesters within the calendar year.

Tuition: The fee that an institution charges students each semester for educational services. It does not include cost of books, room and board, or other incidental fees.

Undergraduate: This term is applied to students, programs, and institutions affiliated with two- and four-year colleges and universities.

A CHECKLIST FOR PLANNING DURING YOUR JUNIOR YEAR IN HIGH SCHOOL

Check off each item below as you complete it during your **junior** year of high school.

I have. . .

- ☐ Read this booklet carefully.
- ☐ Asked my parents to read the booklet.
- ☐ Talked with my parents about the information in this booklet and about my educational and career plans.
- ☐ Met with my school counselor to talk about myself and my educational and career plans.
- ☐ Talked with my teachers and others about post-high school education and careers in which I am interested.
- ☐ Learned which high school courses I will need for admission to the colleges, institutions, or careers of interest to me.
- ☐ Taken or made arrangements to take those courses in high school required for entry into these colleges, institutions, or careers.
- ☐ Read catalogues and other materials about post-high school education of interest to me.
- ☐ Talked with people who have attended post-high school institutions of interest to me.
- ☐ Attended a college night in my school or community.



- ☐ Used career resources as suggested in this booklet to learn more about careers.
- ☐ Attended a career fair in my school or community.
- ☐ Talked with people currently working in careers of interest to me.
- ☐ Talked with my counselor, parents, teachers, and other adults to identify job opportunities and other activities that will allow me to explore my career interests while I am still in school.
- ☐ Taken or made arrangements to take the PSAT/NMSQT.
- ☐ Made plans to visit or visited post-high school institutions of interest to me.
- ☐ Talked with my counselor about financial aid programs available to me.

A CHECKLIST FOR PLANNING DURING YOUR SENIOR YEAR IN HIGH SCHOOL

Check off each item below as you complete it during your **senior** year of high school.

I have. . .

- ☐ Talked with my parents, counselor, teachers, and others about my educational and career plans.
- ☐ Taken all the high school courses required for entry into the post-high school institutions and careers of interest to me.
- ☐ Taken or made arrangements to take admissions tests required by the post-high school educational institutions to which I may choose to apply.
- ☐ Visited post-high school educational institutions I may want to attend.
- ☐ Contacted the admissions offices at post-high school institutions for financial aid information.
- ☐ Obtained information about financial aid available to me.
- ☐ Made application at the post-high school institutions I want to attend.
- ☐ Filed the necessary forms for financial aid for which I am eligible.
- ☐ Talked with my school counselor, teachers, parents, and other adults and used resources suggested in this booklet to identify career opportunities related to my career goals after high school.

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EDUCATIONAL OPPORTUNITIES IN VIRGINIA PUBLICATIONS

- **ABOUT THE PRESCHOOL YEARS, BOOK 1** For parents of young children who will serve as their children's first teachers and educational decision makers.

Includes information about child development; childrearing techniques; helping young children grow and learn; preschool education; and public education in Virginia.

- **ABOUT THE ELEMENTARY SCHOOL YEARS, BOOK 2** For parents of children entering elementary school.

Includes information about elementary school programs; school staff and services; studying and homework; child development; childrearing techniques; and helping children to be successful students.

- **ABOUT THE MIDDLE SCHOOL YEARS, BOOK 3** For students completing their final year in elementary school and for parents wanting to help them plan for middle school.

Includes information about middle school programs; school staff and services; studying and homework; career exploration; early adolescent development; childrearing techniques; and helping middle school children to be successful students.

- **ABOUT HIGH SCHOOL, BOOK 4** For seventh-grade students and their parents for use in planning for high school.

Includes information about high school programs; graduation requirements; diplomas; studying and homework; special programs and activities; careers; and helping high school students to succeed.

- **AFTER HIGH SCHOOL, BOOK 5** For high school juniors and their parents for use in planning for further education and careers after high school graduation.

Includes information about Virginia's colleges and universities; community and two-year colleges; vocational-occupational programs; adult and continuing education; General Educational Development (GED) Program; military service; financial aid; careers; and sources of additional information.

Copies of these booklets will be available for use at the following locations throughout Virginia: guidance offices and libraries at all public elementary, middle/junior high/intermediate, and high schools, and public libraries. Copies of Book 1 will be distributed through hospitals in Virginia to parents of new babies.

For information, please contact: Public Information Office
Virginia Department of Education
P.O. Box 6Q
Richmond, VA 23216

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